Health Status Registry Report 2005

Congenital Anomalies
Genetic Defects
Selected Disabilities
Handicapping Conditions

Includes British Columbia
Birth Data to Year 2002

British Columbia
Vital Statistics Agency

DOC
BC
V5
D:H425
2002
c.3

tal
tistics
Columbia
ics Agency

LEGISLATIVE LIBRARY OF BRITISH COLUMBIA
3 3298 00309 7897

106-00401/

Health Status Registry Report 2005

Congenital Anomalies
Genetic Defects
Selected Disabilities

Includes British Columbia Birth Data to Year 2002

Published by
British Columbia Vital Statistics Agency
Knowledge Management and Technology Division
Ministry of Health Services

In cooperation with
Ministry of Children and Family Development
Province of British Columbia

April 2005

Vital Statistics
British Columbia
Vital Statistics Agency

LEGISLATIVE LIBRARY
VICTORIA BC V8V 1X4 AUG 0 3 2005

Table of Contents

Introduction 1

History of the Health Status Registry 2

General Information 4
HSR Mission, Mandate and General Objectives 4
Confidentiality 4
Criteria for Registration 5
Medical Coding 5
Data Collection/Updating 5
Information Box on Multiple Congenital Anomalies 6
Information Box on Fetal Alcohol Spectrum Disorder 6
Guide to Data Interpretation 7

HSR Reporting Sources 8
Introduction 8
Highlights 9
Table 1 Number of Diagnoses Provided by Reporting Sources 9

Section 1: Congenital Anomalies 10
Overview 10
Information Box on Autism Spectrum Disorder 12
Provincial Highlights 13
Table 2 Congenital Anomalies for Total Births by Year of Birth 14
Table 3 Trends of Congenital Anomalies Rates for Total Births by Year of Birth 16
Figures 1 - 12 Trends in Selected Congenital Anomaly Rates 17-22
Information Box on Collaborative Research by the Health Status Registry 23

Section 2: Congenital Anomalies by Health Authority and Health Service Delivery Area 24
Overview 24
Figure 13 Health Authority and Health Service Delivery Area (Map) 25
Health Authority Highlights 26
Tables 4 - 9 Congenital Anomalies for Total Births by Year of Birth by Health Authority (HA) 28-33
Health Service Delivery Area Highlights 34
Tables 10 - 25 Congenital Anomalies for Total Births by Year of Birth by Health Service Delivery Area (HSDA) .. 36-51
Table 26 Congenital Anomaly Cases by HSDA and HA 52
Table 27 Congenital Anomaly Diagnoses by HSDA and HA 52
Table 28 Congenital Nervous System Defects by HSDA and HA 53
Table 29 Congenital Heart Defects by HSDA and HA 53
Table 30 Congenital Cleft Palate/Cleft Lip Defects by HSDA and HA 54
Table 31 Congenital Musculoskeletal Deformities by HSDA and HA 54
Table 32 Chromosomal Anomalies by HSDA and HA 55

Section 3: Congenital Anomalies by Local Health Area 56
Local Health Area Highlights *56*
Figure 14 Local Health Area (Map) 57
Table 33/Figure 15 Congenital Anomaly Cases by Local Health Area 60-61
Table 34/Figure 16 Congenital Anomaly Diagnoses by Local Health Area 62-63
Table 35/Figure 17 Congenital Nervous System Defects by Local Health Area 64-65
Table 36/Figure 18 Congenital Heart Defects by Local Health Area 66-67
Table 37/Figure 19 Cleft Palate/Cleft Lip Defects by Local Health Area 68-69
Table 38/Figure 20 Congenital Musculoskeletal Deformities by Local Health Area 70-71
Table 39/Figure 21 Chromosomal Anomalies by Local Health Area 72-73

Section 4: Other Genetic Conditions 74
Introduction *74*
Highlights *76*
Tables 40 - 61 Counts of Individuals Living with "Other" Genetic Conditions by Age Group, As of Year-End 2002 by HA and HSDA 77-87

Section 5: Selected Chronic Disabilities and Handicapping Conditions 88
Introduction *88*
Highlights *90*
Tables 62 - 83 Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group, As of Year-End 2002 by HA and HSDA 91-112

Appendix 1 113
Congenital Anomaly Categories and Codes 113
Other Genetic Conditions Categories and Codes 115
Disabilities and Handicapping Conditions Categories and Codes 116

Introduction

The Health Status Registry (HSR) is a comprehensive database of information operated by the B.C. Vital Statistics Agency. Data on individuals with congenital anomalies, other genetic conditions, and selected disabilities and handicapping conditions are collected in order to keep the public and interested professionals informed, respond to research requests, and conduct major research projects. This report provides information on the contents of the HSR and is an update of the 2002 publication *Health Status Registry, Congenital Anomalies – Genetic Defects – Selected Disabilities, British Columbia to 2000.*

This report outlines the history of the Health Status Registry, and then provides information on the Registry's objectives, confidentiality, registration criteria, diagnostic coding, and data collection. A guide to data interpretation and information about the HSR reporting sources completes the general information section of this report. These reporting sources represent the "data capture" points used for information on congenital anomalies, other genetic conditions, and selected disabilities and handicapping conditions. Ascertainment of registrable cases is dependent upon complete and timely reporting by appropriate sources. Counts of diagnoses by source for 1998 to 2002 are provided in a table at the end of this section. The most significant source of HSR data for this report was discharge abstracts from acute care hospitals throughout the province. A previous comprehensive data review indicated possible gaps in reporting to HSR. As a result, a special data request was made and information was obtained for all conditions recorded on 1984-2000 hospital discharge abstracts that met the criteria for registration with HSR.

The next sections of this report provide information on congenital anomalies, starting with an overview at the provincial level. Tables and graphs show trends in the birth incidence rates of selected congenital anomalies over the last decade. This is followed by information on congenital anomalies at the sub provincial level. The Ministry of Health Services divides the province into six health authorities (HA). Each HA consists of three or four health service delivery areas (HSDAs), which are, in turn, comprised of local health areas (LHAs). Assignment of HSR cases to these geographic areas is based on the mother's address at the time she gave birth. A series of tables provides the incidence of congenital anomalies for single years of birth for each HA and HSDA. Then several years of data are combined in tables showing counts and rates of selected congenital anomaly categories across the areas. The information on congenital anomalies concludes with tables and maps providing statistics by local health area.

The last two sections of this report provide information on "other" genetic conditions and selected disabilities and handicaps as of year-end 2002. Reporting of genetic conditions is not age limited; so these counts are shown for all age groups in the provincial population. Prevalence counts for selected disabilities and handicapping conditions are presented for five age groupings in the provincial child population. Because the purpose of these sections is to monitor where people with disabilities are currently living, all prevalence information is presented by HA and HSDA based upon last known residence address. The report concludes with an appendix listing the diagnostic categories and codes used in the statistical sections of the report, and tables providing birth defects monitoring information for the last three years.

The British Columbia Vital Statistics Agency gratefully acknowledges the input and financial support of the British Columbia Ministry of Children and Family Development.

History of the Health Status Registry

In 1948, federal government grants were offered to all provinces to establish programs for the prevention, control, and treatment of crippling conditions in children. In British Columbia, the grant was used to determine the number and location of crippled children, the types of crippling diseases, and the availability of treatment facilities. A survey conducted under the auspices of the British Columbia Medical Association was sent to all physicians in the province. The response, however, was very poor. As an alternative, surveys were completed based upon a review of all provincial hospital admission records for 1948 and 1949. Surveys were also sent to public health nurses in the Provincial Public Health Districts.

The completed surveys were sent to the Division of Vital Statistics for tabulation. The survey results found 20,000 crippled children and minimal treatment facilities. When preliminary results indicated that most children were not receiving treatment early enough for maximum benefits, Vital Statistics revised the Physician's Notice of Birth to collect information on abnormalities at birth.

In 1952, the *Crippled Children's Registry* was established under the Division of Vital Statistics in the Ministry of Health and Welfare in order to collect and collate data on crippled children, to assist in the organization of services for these children, and to refer crippled children to appropriate treatment facilities. The criteria for registration were that the individual be less than 21 years of age with a disability severe enough to interfere with normal living, obtaining an education, and earning a livelihood.

In addition to collecting data, this voluntary registry conducted medical examinations to register new cases and reassess children already registered and to refer children to appropriate treatment facilities. Information was provided by Public Health Districts to ensure that cases in their catchment areas received adequate care. The Registry also assisted in the development of services for the handicapped and as volunteer and government organizations were organized, they joined private physicians and treatment and rehabilitation facilities as reporting sources. Mental health centres were also added as reporting sources. The Registry's name was changed to the *Handicapped Children's Registry* in 1957. At this time, there were less than 12,000 cases registered.

In response to the thalidomide disaster in 1960, the age limit of 21 was removed and the name was changed to the *Registry for Handicapped Children and Adults*. The criteria for registration were also expanded to include all familial conditions and congenital malformations. During this decade, more reporting sources were added, including UBC Medical Genetics, death and stillbirth registrations, obstetrical discharge summaries, the Cancer Registry, and hospital admissions/separations for children with congenital anomalies who were less than seven years old. A study to assess the results of treatment and rehabilitation was initiated through the Public Health School Programs. The "7 and 14 year Follow-Up Study" provided information on children between these ages and continued for ten years. During the 1960s the Registry's focus began to change and it became a more passive data repository. By 1968 there were 36, 000 cases in the Registry.

In 1975, the Registry's name was changed to the *Health Surveillance Registry* as risk registers for amniocentesis, rubella, hyaline membrane disease, and fetal alcohol spectrum disorder were added. The Registry's objectives were to provide a reliable basis for estimating the prevalence, incidence, and distribution of specific conditions by ascertaining, recording, and classifying handicapping conditions, congenital anomalies, and genetic defects in the population of British Columbia, to assist health services and physicians in the ascertainment, diagnosis, monitoring, and management of such conditions, and to assist medical and genetic research based on the data by undertaking statistical analysis of the data collected. There were approximately 55,000 cases in the Registry in 1973, and almost 100,000 by the end of 1978, largely as a result of an increase in reporting sources.

In 1980, the Cancer Registry, previously part of the Health Surveillance Registry, moved to the Cancer Control Agency of British Columbia. At this time, there were 68 active reporting sources for the HSR and about 108,000 cases. The Registry maintained a low profile during the 1980s amid the provincial government's downsizing and "privatization". By 1989 the Registry had grown to 195,000 cases and more than 80 reporting sources. Beginning in 1975 the HSR Annual Report was replaced by summary tables presented in the Division of Vital Statistics Annual Reports.

In the early 1990s an evaluation of the Registry was conducted and a development plan was prepared which provided recommendations on data collection and recording, access and security, medical coding systems and consultation needs, and technological requirements. In 1991, the *Royal Commission Report on Health Care and Costs* contained a recommendation that Vital Statistics develop and maintain a registry of individuals with disabilities to assist in the development of long-range plans and to monitor the changing needs of the population. Subsequently, in September 1992, amendments to the *Health Act* established the legislative mandate and responsibilities for the HSR.

The Registry's current name (Health Status Registry) was acquired in 1992. In order to refocus the Registry's emphasis on children, the criteria for registration of individuals with long-term physical, mental and/or emotional problems was restricted to persons under the age of 20 years old. Registration of persons with genetic conditions, however, was not age limited. By 2000 there were approximately 215,000 records in the Registry.

In 1998 the Registry started to collect information on early terminations of pregnancy due to congenital anomalies, as recommended by medical geneticists and the B.C. Provincial Health Officer (see *A Report on the Health of British Columbians*; Provincial Health Officer's Annual Report, 1997). Currently a formal agreement is being set up with the participating bodies in order to monitor these cases and to establish reporting procedures in accordance with the *Freedom of Information and Protection of Privacy Act* and legislative mandate.

In 2001 the Health Status Registry was accepted as a full member of the International Clearinghouse for Birth Defects Monitoring Systems (ICBDMS). HSR now participates in ICBDMS's international birth defects monitoring activities by submitting quarterly and annual data for residents of British Columbia to the ICBDMS. In 2002 Autism Spectrum Disorder was added to the Health Status Registry's list of registrable conditions.

General Information

HSR Mission, Mandate and General Objectives

The British Columbia Vital Statistics Agency administers section 10 of the Health Act by operating the Health Status Registry. The mission, mandate, and general objectives of the Registry are:

- To record and classify information concerning congenital anomalies, genetic conditions, and selected handicapping conditions of children;
- To assist health care planning and others in the planning and development of appropriate services by providing accurate and reliable data on congenital anomalies, genetic conditions, and chronic handicapping conditions; and
- To undertake statistical analysis of the data collected and to assist medical and genetic research based on this data.

Additional objectives are:

- To keep the public informed by producing timely and accurate statistical-related products, while maintaining the confidentiality of the data;
- To respond to research requests from a wide and varied audience, such as governments, universities, private and public organizations, health-related researchers and planners, and administrators;
- To develop the HSR as a useful tool that will be utilized by health care and social service systems.

Confidentiality

Maintenance of the confidentiality of HSR data is essential. Confidentiality of the data is protected by ensuring that all staff involved with HSR records comply with the *Freedom of Information and Protection of Privacy Act*, the *Health Act*, and HSR policies and procedures. The *Freedom of Information and Protection of Privacy Act* states that disclosure of personal information is an unreasonable invasion of a personal privacy if the information relates to a medical, psychiatric, or psychological history, diagnosis, condition, treatment, or evaluation. The *Health Act* specifies that persons acting on behalf of the Health Status Registry must not communicate personal identifying information to persons who are not acting on behalf of the Registry except to the extent necessary for recording and classifying information concerning congenital anomalies, genetic conditions, or chronic handicapping conditions. HSR policies and procedures require staff to get prior authorization from the Chief Executive Officer of the British Columbia Vital Statistics Agency before contacting a registered individual or their physician. Registry staff may contact reporting sources concerning registered individuals to clarify information received from the source or to request additional information about the diagnosis or treatment.

Confidentiality is also considered when personal identifiers are not involved. The content of statistical tables is reviewed to ensure small numbers do not allow identification of specific individuals or institutions, and approval for release by the Chief Executive Officer of the British Columbia Vital Statistics Agency or the Director of Information Resource Management is required. The Chief Executive Officer of the British Columbia Vital Statistics Agency may also authorize the release of records without personal identifiers. In order for this to happen, the researcher must first submit a copy of the research proposal and then sign an agreement specifying that the data supplied will only be used for the approved project and that all files will be destroyed upon completion of the project. Data elements that are not personal identifiers but which could allow for the identification of an individual (such as a postal code) are not released.

Criteria for Registration

Since January 1, 1993, the criteria for registration of a case/individual within the HSR is as follows:

- A person who is 19 years of age or less and is diagnosed as having a physical, mental, and/or emotional problem which is likely to have long-term disabling effects, to interfere substantially with education, or to prevent full and open functional employment; or
- A person of any age who is diagnosed as having a genetic condition or congenital anomaly that is not necessarily disabling.

Medical Coding

Reporting sources provide identifying and medical information to the Health Status Registry about individuals known to them who meet the criteria for registration. These individuals may have more than one registrable condition/diagnosis. For some cases, a six-digit code based on McKusick's classification system of inherited conditions provides genetic researchers with the specific detail they require to distinguish various genetic conditions and congenital anomalies.

Diagnoses are coded using the World Health Organization's *International Classification of Diseases* (ICD). Coding by HSR staff according to the tenth revision (ICD-10) began in the year 2000, although some reporting sources continued to provide diagnoses using the ninth revision (ICD-9). ICD-10 includes new disease entities and is far more detailed than ICD-9, with approximately twice as many codes. In addition, some groupings of conditions within the classification have changed, and some conditions have been assigned to different parts of the classification than in ICD-9. Although diagnoses from 1999 and earlier years have not been recoded, the categories used for congenital anomalies, other genetic conditions, and disabilities and handicapping conditions presented in this report are based on ICD-10. As a result, some categories presented in this report differ from those shown in earlier reports. More information on the diagnoses used in this report can be found at the beginning of each section, and lists of the ICD-9 and ICD-10 codes used for each category can be found in the appendix.

The HSR has a Medical Policy Committee to provide advice in all medical matters related to the Registry. Members of this committee are appointed by the Assistant Deputy Minister of Knowledge Management and Technology or the Chief Executive Officer of the British Columbia Vital Statistics Agency and currently include geneticists, HSR staff, and Vital Statistics managers. The committee meets on a regular basis, about four times per year. In 2004, the Medical Policy Committee reviewed and revised all HSR registrable conditions and has been working to identify and recruit additional reporting sources.

Data Collection/Updating

The daily operation of the Health Status Registry includes registration of new cases and updating existing cases. This process begins when information is received from reporting sources. Some sources, such as Children's Hospital, UBC and Victoria General Hospital Medical Genetics, provide information electronically, while others provide hard copies. The information is reviewed to ensure that the case meets the criteria for registration and that the affected person lives in the province. After the medical coding is complete, a search determines if this is an initial registration or if the case is already in the Health Status Registry and data entry is done.

Periodic linkage with Vital Statistics' death files ensures that the death "flag" on HSR records is up to date for individuals who died in British Columbia. This allows the Registry to produce tables of still living cases, as well as snapshots of registrable conditions based on years of birth or at particular points in time. Records for individuals born in the province are also linked to the Vital Statistics' birth files so data pertaining to the individual's birth can be added to their HSR record.

Information Box

Multiple Congenital Anomalies

The International Centre for Birth Defects (ICBD) monitors congenital malformations by collecting and analysing data from the International Clearinghouse for Birth Defects Monitoring Systems. The Health Status Registry (HSR) provides data to ICBD for dissemination in quarterly and annual reports; an example is provided below.

Cases of Multiple Congenital Anomalies (MCA)
Review by Program and Number of Defects
2nd Quarter, 2004

Program	Total Births	Known Etiology (Syndromes)	1 Major Unrelated Defect	2+ Defects (MCA)	Total Cases Reported
Canada: British Columbia	10,372	3	15	9	27
Finland	14,498	14	1	22	37
France: Central East	27,673	1	4	12	17
Israel: IBDMS	8,654	0	2	5	7
Mexico: RYVEMCE	8,317	2	4	10	16
USA: Atlanta	12,608	1	0	2	3
TOTAL	**82,122**	**21**	**26**	**60**	**107**

MCA - Multiple Congenital Anomalies: the current case definition is at least 2 major congenital anomlaies (excluding syndromes with known etiology).
Source: International Centre for Birth Defects, 2nd Quarterly Report, 2004.

Please see the Information Box on Collaborative Research by the Health Status Registry for details of other collaborative research studies.

Fetal Alcohol Spectrum Disorder

Diagnosing FASD is difficult because no two individuals with FASD present with the same constellation of anomalies and disabilities. As a result, a diagnosis of FASD requires a referral to a specialist, generally a developmental pediatrician. The HSR has been active within the province of British Columbia in developing the capacity within the province for diagnosing FASD. The Vital Statistics Agency, which operates the HSR, funded a project to develop a plan for training a network of clinicians across the province who can provide the required investigation. The result of this work is the funding proposal *A Plan for Province-Wide Access to Consistent Diagnosis of FAS*. External funding is currently being sought to begin implementation of this plan.

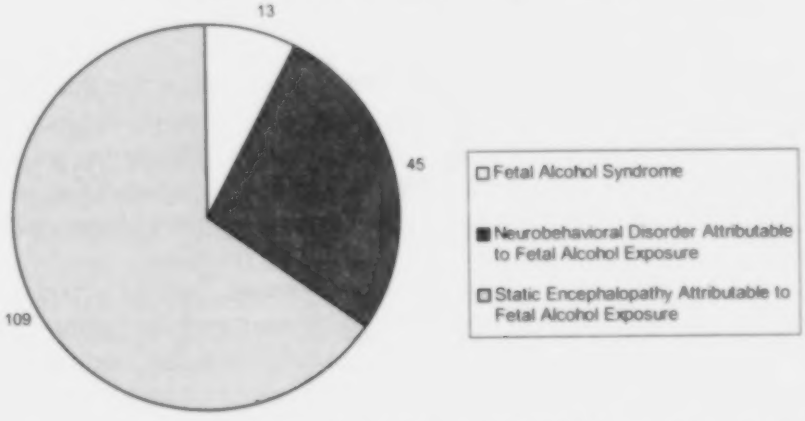
The major reporting sources for FASD in British Columbia are the Asante Centre for Fetal Alcohol Syndrome and Sunny Hill Health Centre for Children. Between 2001 and 2003, HSR received reports of 167 cases with FASD.

The pie chart shows FASD cases by diagnostic category. Cases with Fetal Alcohol Syndrome (FAS) have growth deficiency, specific facial characteristics, and brain dysfunction. The category of Static Encephalopathy Attributable to Fetal Alcohol Exposure consists of cases with detectable brain abnormalities, while Neurobehavioural Disorder Attributable to Fetal Alcohol Exposure consists of cases with cognitive or behavioural dysfunction where brain abnormalities were not detected. Fetal alcohol exposure could be either known or unknown, but not ruled out, for any of the diagnostic categories. Nearly two thirds (65.3%) of the cases reported to HSR have Static Encephalopathy Attributable to Fetal Alcohol Exposure (109 cases). Another quarter (26.9%) of the cases, have Neurobehavioural Disorder Attributable to Fetal Alcohol Exposure (45 cases), while less than one in thirteen (7.8%) cases (13) are FAS.

Information Box

Fetal Alcohol Spectrum Disorder cont'd

Fetal Alcohol Spectrum Disorder Cases Reported to the Health Status Registry



The loss in human potential and cost of caring for children with FASD is very large. To address this issue, the provincial government has developed a comprehensive strategic plan for Fetal Alcohol Spectrum Disorder. It can be found at: http://www.mcf.gov.bc.ca/fasd/index.htm.

Guide to Data Interpretation

There are several points to keep in mind when interpreting the kind of information presented in this report. Incomplete case reporting, variations in reporting over time and by areas, and changes in technology have all had an impact upon the HSR. For many of the diagnostic conditions presented in this report, the data should be interpreted as a summary of what is currently available in the Health Status Registry, not as complete statistics on the birth incidence or prevalence of the condition. The remainder of this section elaborates further upon these points.

Some of the rates presented in this report, such as total diagnoses, are based on counts of infants born with any congenital anomaly. Anomalies can vary widely in their severity and in their impact on the future health of individuals afflicted. Some congenital anomalies may not require ongoing health care management or treatment. Therefore, when assessing rates, consideration should be given to the types of anomalies that are contributing to the rates presented in the table.

Tables in this report may show congenital anomaly rates for single years or at the health service delivery area (HSDA) or local health area (LHA) level. For some conditions or for some of the areas, the rates are based on small counts so yearly fluctuations of a few cases will have a large impact. In addition, the completeness of the data may vary depending on the consistency and compliance of reporting by sources.

The reporting sources determine the degree of completeness of registrations and the currency of data on individual cases. HSR case coverage varies by condition, from good coverage for major birth defects that are readily identifiable at birth, to limited coverage for conditions that are usually not diagnosed until late childhood. The time required for diagnosis and reporting also varies by condition, so recent years may have lower counts than earlier years. The reader should always keep in mind that the numbers in this report represent cases or diagnoses reported to the Health Status Registry, not necessarily the number of cases or conditions occurring in each year.

The time span covered by this report has included several changes of emphasis on the reporting cases to the HSR. During the late 1980s and early 1990s some important reporting sources stopped providing data to the HSR, however, since the mid 1990s this situation has reversed and reporting has improved. In 2004 a large amount of missing data was recovered from 1984-2000 hospital discharge abstracts noting conditions that met the criteria for registration with HSR. Nevertheless, the reader is reminded that the long-term trends shown in this document reflect trends in the rate of reporting, as well as trends in the underlying number of cases with the specified conditions in the population.

When comparing HSR data for various areas, the reader is also reminded that the utilization of specialized services may not be uniform across all areas. If residents who live close to a specialized service are more likely to use the service than individuals who live much farther away, HSR data will reflect these utilization rates. Thus higher rates in one area might indicate more services, more utilization of services, or differences in the incidence of various conditions compared to other areas.

Changes in prenatal screening have also had an impact on the HSR data. With the advent of amniocentesis and ultrasound, many types of anomalies can be detected early in pregnancy and the mother may choose to terminate the pregnancy. HSR data on congenital anomalies includes cases that meet the criteria for registration as a stillbirth (a minimum of 20 weeks gestation or a weight of at least 500 grams). Although HSR also collects information on medical terminations of pregnancy (a minimum of 14 weeks gestation) due to congenital anomalies (see the section on the history of the Health Status Registry and Information Box for more details), these cases are not included in the data presented in this report.

Finally, unexplained clusters of cases have often been found when examining congenital anomaly rates over time. Many congenital anomalies show large variations from year to year, even when the rates are stable over longer periods of time. Thus it is quite common to see no cases with a specified anomaly for a number of years, followed by several cases in one year, then fewer or none, and then the pattern repeats.

HSR Reporting Sources

Introduction

The Health Status Registry reporting sources represent the "data capture" points used for information on congenital anomalies, other genetic conditions, and selected disabilities and handicapping conditions. Ascertainment of registrable cases is dependent upon complete and timely reporting by appropriate sources. The numbers and kinds of reporting sources have changed considerably over time. Although legislation now requires individuals and organizations to submit data to the Health Status Registry, these data have historically been collected from voluntary reporting sources. When the focus of the HSR changed to emphasize registering disabling or handicapping conditions only when they involved children, a number of reporting sources for non-childhood conditions were discontinued. Reported numbers also decreased from some other sources.

Congenital anomalies are present at birth, but only those that are clinically apparent or manifest severe symptoms are likely to be noted on the Notice of Live Birth or Stillbirth, which is completed and sent to the British Columbia Vital Statistics Agency within 48 hours of the birth. Reporting of less evident congenital anomalies, such as pyloric stenosis and many heart defects, depends on contact by the individual with one of the Registry's other reporting sources such as the British Columbia's Children's Hospital, other acute care hospitals, or the HSDA. Large portions of genetic and disabling or handicapping conditions are even less likely to be identified at birth. Cases with genetic conditions are most often reported by UBC and Victoria General Hospital Medical Genetics. For conditions other than those that are present at birth, consistent and complete reporting from sources other than Vital Statistics is essential.

The concept of building case histories through data from multiple reporting sources over an extended period of time is an integral part of this kind of database. Reports on the same individual from several different sources serve to add, update, and correct the existing information, thus improving its accuracy and relevance.

Highlights

Table 1 shows that a total of 156,389 diagnoses were reported from 1998 to 2002.

The most significant source of HSR data for this report was discharge abstracts from acute care hospitals throughout the province. A previous comprehensive data review indicated possible gaps in reporting to HSR. As a result, a special data request was made and information was obtained for all conditions recorded on 1984-2000 hospital discharge abstracts that met the criteria for registration with HSR. This resulted in a total of 114,857 diagnoses from this source, or nearly three quarters (73.4%) of all diagnoses reported to HSR in 1998-2002. It should be noted that cases previously reported by British Columbia's Women's Hospital and Health Centre, British Columbia's Children's Hospital, or Sunny Hill Health Centre for Children would not be counted in the 114,857 diagnoses from hospital discharge abstracts unless they had additional or different diagnoses than the ones that were previously reported.

There were 41,532 diagnoses from reporting sources other than the hospital discharge data base. Most of these (56.3%) were reported by Children's Hospital. This source reported 23,398 diagnoses.

Vital Statistics Live Births, Stillbirths, Deaths, and Amendments were the source of 12,527 diagnoses, or almost a third (30.2%) of the diagnoses from sources other than the hospital discharge data base.

Table 1
Number of Diagnoses Provided by Reporting Source
British Columbia, 1998 - 2002

Reporting Source		Number of Diagnoses
001-040	Public Health	2,317
046	UBC Genetics	1,037
052	Children's Hospital	23,398
060	Canadian National Institute For The Blind	13
064	Vital Statistics Livebirths	9,854
066	Riverview Hospital	5
080	Hospital Discharge Abstracts	114,857
081	Vital Statistics Stillbirths	1,355
082	Vital Statistics Deaths	1,308
097	BC Women's Hospital	340
101	Victoria Medical Genetics	115
167	Children's Hospital Cystic Fibrosis Clinic	51
169	Vital Statistics Amendments	10
170	Willow Clinic - Formerly Woodlands	13
301	Sunny Hill Health Centre For Children	123
401	Asante Centre	22
	Total	**156,389**

Note: Counts include all unique diagnoses provided by the specified reporting source.

Section 1: Congenital Anomalies

Overview

A congenital anomaly is a defect that is present at birth, and can result from either genetic or environmental factors, or both. Some congenital anomalies require ongoing treatment, and all present a reason for concern. Congenital anomalies are second to perinatal conditions as the leading cause of infant mortality and stillbirths. In British Columbia in 2002, congenital anomalies were responsible for a fifth of all infant deaths (age at death less than one year old) and nearly a tenth of all stillbirths.

Congenital anomalies have many causes, many of which remain unknown. They can be entirely genetically determined by either a chromosome abnormality or by single gene mutations. The latter can either be inherited or can arise as a new event. A very small number of congenital anomalies are caused by environmental factors such as maternal exposures to specific medications or infections, e.g. rubella, or lifestyle factors, e.g. alcohol and tobacco. The vast majority of isolated malformations, i.e. only one defect per child, are likely caused by both gene and environmental factors and fall in a category known as multifactorial. The cause of chromosome abnormalities is in most cases unknown but there is a strong correlation between errors in reduction division (meiosis) and advanced maternal age. Recessive gene diseases occur when both parents of the child carry that gene in hidden or recessive form and the child is at risk of receiving the recessive gene from each parent and hence the disorder. Certain genetic diseases have been found to occur more frequently within populations from specific ethnic backgrounds, for example, sickle cell anemia is particularly common in people whose ancestors come from sub-Saharan Africa, and thalassemia from populations surrounding the Mediterranean.

A large range of genetic and environmental factors can produce the congenital anomalies reported in this publication.

- Congenital nervous system defects include those of the neural tube (anencephaly and spina bifida) and microcephaly. While the majority of babies with a neural tube defect come from families with no previous history, nevertheless familial factors do operate and once a family has had one affected child the risk of recurrence increases in subsequent children. Both the occurrence and recurrence of neural tube defects can be markedly reduced by the preconception and first trimester ingestion of folic acid supplements. Microcephaly may be the result of chromosome or gene abnormalities, a virus, or acquired through association with maternal herpes, ischemic insults, or congenital hypothyroidism.
- Most cases of cleft lip with or without cleft palate are due to multifactorial inheritance but a small proportion belong in syndromes which can be either chromosomal or single gene in origin. Cleft palate without cleft lip is more likely to belong in a syndromic category with less evidence for multifactorial inheritance.
- Congenital anomalies of the heart include some defects which are associated with syndromes such as Down's (trisomy 21) and Turner's, as well as maternal exposures, such as rubella, anticonvulsant medication, or excessive alcohol consumption.

The grouping of congenital anomalies used in this report was selected on the basis of similar system development and to provide sufficient numbers to enable analysis. Subgroups were selected to reflect either the most serious conditions (where numbers warranted) or the most common within the group. The congenital anomalies classification categories represent conditions with a wide range in level of severity of impairment, disability, or disfigurement. The complete list of groups and subgroups with ICD codes is provided in Appendix 1.

- Other neural tube defects include spina bifida, and encephalocele.
- An anomaly of the eye can range in severity from complete agenesis (absence) to aphakia (absence of the lens), coloboma (absence or defect of ocular tissue), or ptosis (drooping) of the lid. Congenital cataract and entropion (inversion of the margin of the eyelid) are among the most frequently reported conditions in this group.
- Defects of the ear, face and neck include for example, anomalies that cause hearing impairment, branchial cleft cyst, webbing of neck, and macrostomia (greatly exaggerated width of the mouth); conditions with a wide range of impairment. The most common conditions in this group, preauricular skin tags or deformities of the pinna, are relatively less disabling.
- Other anomalies of the heart include, for the most part, unspecified heart defects, heart valve anomalies, or dextrocardia (location of the heart in the right hemithorax).
- Other circulatory system anomalies include defects of the aorta, pulmonary arteries, or peripheral circulation. A single umbilical artery, a frequently reported defect, is typically associated with multiple congenital anomalies.
- While agenesis, and more commonly, hypoplasia (incomplete development) of the lung or larynx/trachea/bronchus atresia represent a small portion of Respiratory System Anomalies, choanal atresia (absence or closure of the openings between the nasal cavity and the nasopharynx) is probably more frequently reported.
- The most frequently reported anomalies of genital organs are undescended testicles and hypospadias.
- Anomalous conditions of the integument such as hemangioma (a benign tumour made of blood vessels), strawberry nevus, or epidermolysis bullosa can be severely disfiguring but the vast majority of conditions reported in this category are ill-defined birthmarks or skin tags.

This section of the report provides an overview of the birth incidence of congenital anomalies in the province since 1973, as well as trends in birth incidence rates of selected congenital anomalies over the last decade. Table 2 shows the number of provincial births with specific congenital anomalies by diagnostic category for 1973-1982 (combined) and for each year from 1983-2002. Table 3 presents the same diagnoses aggregated to show two time periods spanning the last decade as well as statistically significant trends over the 1993-2002 time period. Next a series of graphs presents three-year moving averages for the incidence of selected congenital anomalies from 1993-2002. Graphs are provided for:

- total diagnoses (all congenital anomalies)
- anencephalus and similar defects
- other neural tube defects
- hydrocephalus
- ventricular septal defect
- patent ductus arteriosus
- cleft palate/cleft lip
- congenital dislocation of hip
- foot defects (varus, valgus, and clubfoot)
- finger defects (polydactyly/syndactyly)
- limb reductions
- Down's syndrome

All this information provides a provincial overview prior to looking at the data for congenital anomalies by geographic areas within the province.

The reader is referred to Appendix 1 for the complete list of congenital anomaly categories and codes. Caveats affecting the data can be found in the Guide to Data Interpretation in the General Information section at the beginning of this report.

Information Box

Autism Spectrum Disorder

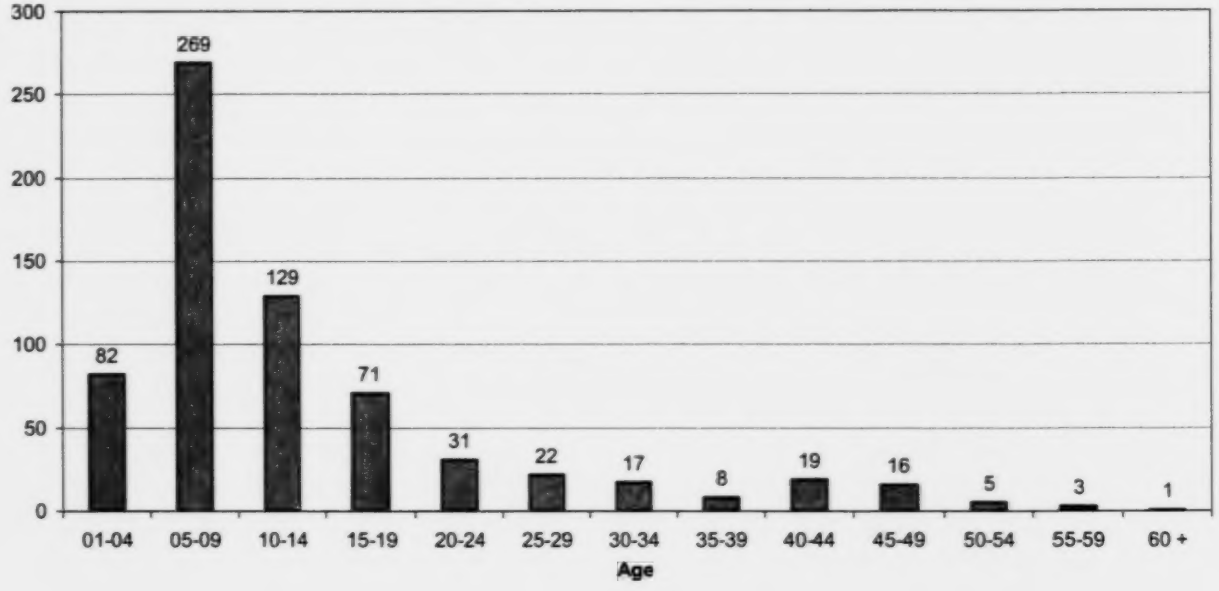
Autism Spectrum Disorder (ASD) is a type of pervasive developmental disorder that interferes with a person's ability to communicate with and relate to others. Autism affects how a person perceives and processes sensory information. Signs of autism almost always develop before a child is three years old, although the condition is frequently not diagnosed until later. It is a spectrum disorder, which means there is a wide variation in how it affects children.

The causes of ASD are still unknown and for now there is no cure for ASD. There are, however, highly effective treatment and intervention methods available that can help individuals and their families manage this disorder. Many children with ASD can learn to communicate effectively, share in family life, and attend school.

Diagnosis of ASD is difficult because there is no known medical test for ASD. A team of health professionals will evaluate a child suspected of having autism or another developmental delay using the diagnostic guidelines established by the American Academy of Child and Adolescent Psychiatry (AACAP).

The Health Status Registry has collected data on individuals with ASD since 2002. The number of individuals with an ASD diagnosis and living in British Columbia is shown below; a total of 673 reports of ASD have been received.

Number of Individuals by Age with a Diagnosis of Autism Resident in British Columbia, 2004



Provincial Highlights

As shown in Table 2, the Health Status Registry recorded 152,838 congenital anomaly diagnoses in 106,172 total cases (live births and stillbirths) in British Columbia between 1973 and 2002. During this time period, between 1,855 and 4,308 total births (live births plus still births) per year were reported with at least one major or minor congenital anomaly. The average number of diagnoses per case was 1.3 for 1973-1982, and ranged from a low of 1.4 in 1983, 1984, 1985, 1989 and 1992 to a high of 1.7 in 1998 and 2002.

More than a quarter (25.8%) of the congenital anomaly diagnoses were musculoskeletal deformities (39,404 diagnoses); the most common of these were congenital dislocation of hip with 9,934 diagnoses, followed by foot defects (varus, valgus, and clubfoot) with 9,651 diagnoses.

Both anomalies of the genital organs (12.2%) and anomalies of the heart (11.1%) were responsible for more than a tenth each of the congenital anomaly diagnoses reported to the HSR (with 18,721 and 16,975 diagnoses respectively).

Trends in the incidence of selected congenital anomaly rates for total births for 1993 to 2002 are presented in Table 3 and Figures 1 through 12. In the table, an arrow indicates an increasing or decreasing trend based on statistical significance at the five percent level ($p<0.05$). Statistical significance was calculated using the rates for individual years for the last ten years. This improved methodology differs from that used for trends in previous HSR reports, so readers should not compare the trends shown in Table 3 of this report with earlier HSR reports.

Figures 1 through 12 present trends for selected anomalies based on three year moving averages. A solid line shows the rates per 1,000 total births for each successive three year time period; a dotted line indicates the trend over the entire time period. Rates for the three year moving averages can be found in Appendix 2.

Anomalies of the eye, anomalies of the ear, face, and neck, and other and unspecified anomalies showed statistically significant decreases over the 1993-2002 period. Tetralogy of Fallot and patent ductus arteriosus showed statistically significant increases over the 1993-2002 period. No statistically significant trends were noted for any of the other categories or subcategories of congenital anomalies.

The rate for total diagnoses of all anomalies averaged 119.24 per 1,000 total births with no indication of a statistically significant increasing or decreasing trend over the last decade.

The average rates for the subcategories of reported congenital anomalies are low. Other heart anomlies, with a rate of 9.82 per 1,000 total births, had the highest rate. Anencephalus and similar conditions, with fewer than two in ten thousand (0.18 per 1,000), had the lowest.

Table 2

Congenital Anomalies for Total Births (Live Births and Stillbirths) by Year of Birth British Columbia, 1973 - 2002

Diagnosis	1973-1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Nervous System Defects	**2,133**	**208**	**199**	**204**	**232**	**189**	**217**	**250**	**225**	**216**	**259**	**210**
anencephalus & similar defects	274	12	10	18	18	8	16	13	9	8	11	6
other neural tube defects	644	52	61	61	74	46	61	83	72	59	87	52
hydrocephalus	498	27	21	33	30	31	32	31	52	36	19	24
other nervous system defects	714	116	107	90	109	103	107	123	92	113	142	128
Anomalies of Eye	**1,232**	**193**	**194**	**136**	**140**	**110**	**211**	**277**	**320**	**280**	**237**	**267**
Anomalies of Ear, Face, Neck	**2,983**	**397**	**485**	**447**	**388**	**368**	**413**	**356**	**349**	**389**	**320**	**253**
Anomalies of Heart	**4,999**	**533**	**483**	**582**	**418**	**416**	**379**	**473**	**678**	**706**	**647**	**472**
transposition of great vessels	225	24	15	34	19	19	21	25	20	36	25	17
tetralogy of Fallot	264	19	27	31	22	31	21	26	26	25	24	16
ventricular septal defect	1,544	156	129	155	106	110	94	140	189	232	193	132
hypoplastic left heart syndrome	94	15	13	9	9	13	5	7	20	12	14	8
other heart anomalies	2,872	319	299	353	262	243	238	275	422	401	391	299
Other Circulatory System Anomalies	**2,874**	**401**	**376**	**431**	**365**	**318**	**244**	**352**	**428**	**441**	**417**	**277**
patent ductus arteriosus	1,377	202	196	214	180	125	88	175	207	211	193	113
Anomalies of Respiratory System	**1,000**	**185**	**226**	**269**	**216**	**176**	**153**	**111**	**140**	**169**	**135**	**102**
Cleft Palate/Cleft Lip	**1,305**	**137**	**158**	**142**	**129**	**96**	**131**	**145**	**203**	**178**	**163**	**153**
Anomalies of Upper Alimentary Tract	**2,555**	**275**	**284**	**275**	**166**	**207**	**232**	**263**	**267**	**251**	**282**	**266**
tracheoesophageal fistula	156	25	19	15	12	15	11	14	21	15	12	9
pyloric stenosis	1,459	74	82	99	45	44	46	79	67	48	51	27
other anomalies of alimentary tract	940	176	183	161	109	148	175	170	179	188	219	230
Other Anomalies of Digestive System	**1,341**	**179**	**163**	**158**	**105**	**121**	**127**	**133**	**146**	**155**	**153**	**104**
Anomalies of Genital Organs	**6,561**	**647**	**691**	**624**	**570**	**551**	**524**	**646**	**695**	**677**	**671**	**537**
Anomalies of Urinary System	**2,253**	**234**	**243**	**239**	**208**	**241**	**259**	**233**	**303**	**316**	**334**	**292**
renal agenesis	274	25	31	33	31	33	33	25	29	36	46	27
cystic kidney disease	173	30	28	36	26	25	31	21	25	30	40	40
other urinary anomalies	1,806	179	184	170	151	183	195	187	249	249	248	225
Congenital Musculoskeletal Deformities	**13,409**	**1,411**	**1,581**	**1,693**	**994**	**793**	**820**	**1,422**	**1,806**	**1,754**	**1,631**	**932**
anomalies of spine	373	52	34	38	40	36	26	21	31	30	31	24
congenital dislocation of hip	2,220	230	381	451	159	94	109	409	676	643	601	276
varus, valgus, clubfoot	3,987	400	438	423	234	194	185	309	345	317	326	203
polydactyly, syndactyly	1,121	103	92	91	106	73	104	112	110	122	129	103
limb reductions	502	43	36	39	39	35	50	27	39	53	37	22
chondro/ osteo dystrophies	229	42	29	22	24	35	25	25	24	29	24	32
other musculoskeletal deformities	4,977	541	571	629	392	326	321	519	581	560	483	272
Anomalies of the Integument	**2,404**	**343**	**405**	**431**	**221**	**189**	**139**	**330**	**355**	**317**	**365**	**166**
hemangioma and lymphangioma	713	108	113	122	74	65	54	105	82	60	79	48
other anomalies of integument	1,691	235	292	309	147	124	85	225	273	257	286	118
Chromosomal Anomalies	**1,026**	**122**	**116**	**128**	**119**	**123**	**107**	**130**	**161**	**159**	**161**	**128**
Down's syndrome	624	68	61	57	60	59	54	69	81	79	55	78
Turner's syndrome	96	10	11	15	8	13	5	4	11	10	13	10
other chromosomal anomalies	306	44	44	56	51	51	48	57	69	67	91	40
Multiple & Multiple System Anomalies	**417**	**69**	**73**	**97**	**89**	**44**	**80**	**87**	**89**	**96**	**88**	**70**
Other and Unspecified Anomalies	**739**	**75**	**90**	**80**	**71**	**67**	**83**	**74**	**88**	**102**	**74**	**80**
Total Diagnoses	**47,231**	**5,409**	**5,767**	**5,936**	**4,431**	**4,009**	**4,119**	**5,282**	**6,253**	**6,206**	**5,937**	**4,309**
Total Cases	**36,194**	**3,806**	**4,097**	**4,141**	**3,042**	**2,763**	**2,823**	**3,706**	**4,308**	**4,190**	**4,123**	**2,945**

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category.
Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 2

Congenital Anomalies for Total Births (Live Births and Stillbirths) by Year of Birth
British Columbia, 1973 - 2002

Diagnosis	1994	1995	1996	1997	1998	1999	2000	2001	2002	Total 1983-2002	Total 1973-2002
Nervous System Defects	**227**	**300**	**254**	**215**	**195**	**215**	**194**	**194**	**118**	**4,321**	**6,454**
anencephalus & similar defects	10	13	6	5	4	10	6	12	7	202	476
other neural tube defects	49	53	52	39	36	63	34	34	19	1,087	1,731
hydrocephalus	34	41	34	22	19	34	27	21	13	581	1,079
other nervous system defects	134	191	161	147	136	109	127	127	79	2,441	3,155
Anomalies of Eye	**277**	**281**	**257**	**205**	**214**	**204**	**166**	**128**	**66**	**4,163**	**5,395**
Anomalies of Ear, Face, Neck	**310**	**280**	**272**	**219**	**184**	**179**	**190**	**143**	**100**	**6,042**	**9,025**
Anomalies of Heart	**632**	**836**	**794**	**751**	**786**	**575**	**707**	**574**	**534**	**11,976**	**16,975**
transposition of great vessels	22	39	37	41	45	37	49	22	25	572	797
tetralogy of Fallot	17	23	19	22	25	20	25	21	20	460	724
ventricular septal defect	165	207	225	190	186	139	167	158	116	3,189	4,733
hypoplastic left heart syndrome	10	17	15	11	17	10	9	18	17	249	343
other heart anomalies	418	550	498	487	513	369	457	355	356	7,505	10,377
Other Circulatory System Anomalies	**501**	**589**	**648**	**570**	**592**	**510**	**512**	**514**	**453**	**8,939**	**11,813**
patent ductus arteriosus	228	266	322	297	280	255	280	281	256	4,369	5,746
Anomalies of Respiratory System	**137**	**149**	**141**	**155**	**141**	**151**	**167**	**129**	**99**	**3,151**	**4,151**
Cleft Palate/Cleft Lip	**154**	**142**	**172**	**176**	**170**	**151**	**166**	**110**	**105**	**2,981**	**4,286**
Anomalies of Upper Alimentary Tract	**349**	**375**	**355**	**318**	**295**	**349**	**344**	**296**	**176**	**5,625**	**8,180**
tracheoesophageal fistula	22	19	12	20	17	11	13	11	10	303	459
pyloric stenosis	50	64	63	46	51	57	48	47	50	1,138	2,597
other anomalies of alimentary tract	277	292	280	252	227	281	283	238	116	4,184	5,124
Other Anomalies of Digestive System	**125**	**155**	**137**	**144**	**149**	**135**	**164**	**128**	**93**	**2,774**	**4,115**
Anomalies of Genital Organs	**669**	**674**	**741**	**612**	**557**	**628**	**706**	**517**	**223**	**12,160**	**18,721**
Anomalies of Urinary System	**266**	**325**	**286**	**274**	**327**	**286**	**310**	**271**	**223**	**5,470**	**7,723**
renal agenesis	32	23	32	20	31	37	33	16	29	602	876
cystic kidney disease	34	41	49	33	47	27	48	34	21	666	839
other urinary anomalies	200	261	205	221	249	222	229	221	173	4,201	6,007
Congenital Musculoskeletal Deformities	**1,318**	**1,469**	**1,377**	**1,305**	**1,272**	**1,341**	**1,423**	**1,052**	**601**	**25,995**	**39,404**
anomalies of spine	26	22	28	25	25	22	27	26	16	580	953
congenital dislocation of hip	472	501	447	411	414	434	526	322	158	7,714	9,934
varus, valgus, clubfoot	257	308	285	283	232	277	294	241	113	5,664	9,651
polydactyly, syndactyly	98	105	112	114	107	127	145	119	81	2,153	3,274
limb reductions	26	45	40	34	32	23	40	26	14	700	1,202
chondro/ osteo dystrophies	12	24	25	20	38	18	14	14	7	483	712
other musculoskeletal deformities	427	464	440	417	424	440	377	304	212	8,700	13,677
Anomalies of the Integument	**345**	**292**	**283**	**259**	**178**	**348**	**328**	**324**	**174**	**5,792**	**8,196**
hemangioma and lymphangioma	82	77	88	78	55	103	82	73	36	1,584	2,297
other anomalies of integument	263	215	195	181	123	245	246	251	138	4,208	5,899
Chromosomal Anomalies	**157**	**183**	**186**	**196**	**178**	**142**	**176**	**170**	**161**	**3,003**	**4,029**
Down's syndrome	75	80	81	91	71	57	81	80	82	1,419	2,043
Turner's syndrome	8	10	14	11	8	9	11	9	8	198	294
other chromosomal anomalies	74	93	91	94	99	76	84	81	71	1,381	1,687
Multiple & Multiple System Anomalies	**98**	**109**	**78**	**86**	**89**	**90**	**101**	**92**	**65**	**1,690**	**2,107**
Other and Unspecified Anomalies	**87**	**104**	**85**	**74**	**86**	**70**	**62**	**48**	**25**	**1,525**	**2,264**
Total Diagnoses	**5,652**	**6,263**	**6,066**	**5,559**	**5,413**	**5,374**	**5,716**	**4,690**	**3,216**	**105,607**	**152,838**
Total Cases	**3,824**	**3,972**	**3,891**	**3,472**	**3,159**	**3,431**	**3,465**	**2,965**	**1,855**	**69,978**	**106,172**

Table 3

Trends of Congenital Anomalies Rates for Total Births (Live Birth and Stillbirth) by Year of Birth British Columbia, 1993 - 2002

Diagnosis	1993-1997		C.I.		1998-2002		C.I.		1993-2002		C.I.		
	Total	Rate	Lower	Upper	Total	Rate	Lower	Upper	Total	Rate	Lower	Upper	TR
Nervous System Defects	**1,206**	**5.21**	**4.92**	**5.51**	**916**	**4.43**	**4.14**	**4.72**	**2,122**	**4.84**	**4.64**	**5.05**	
anencephalus & similar defects	40	0.17	0.12	0.23	39	0.19	0.13	0.25	79	0.18	0.14	0.22	
other neural tube defects	245	1.06	0.93	1.19	186	0.90	0.77	1.03	431	0.98	0.89	1.08	
hydrocephalus	155	0.67	0.56	0.78	114	0.55	0.45	0.65	269	0.61	0.54	0.69	
other nervous system defects	761	3.29	3.05	3.52	578	2.79	2.57	3.02	1,339	3.06	2.89	3.22	
Anomalies of Eye	**1,287**	**5.56**	**5.26**	**5.87**	**778**	**3.76**	**3.50**	**4.03**	**2,065**	**4.71**	**4.51**	**4.92**	↘
Anomalies of Ear, Face, Neck	**1,334**	**5.76**	**5.46**	**6.07**	**796**	**3.85**	**3.58**	**4.12**	**2,130**	**4.86**	**4.65**	**5.07**	↘
Anomalies of Heart	**3,485**	**15.06**	**14.56**	**15.56**	**3,176**	**15.36**	**14.82**	**15.89**	**6,661**	**15.20**	**14.83**	**15.56**	
transposition of great vessels	156	0.67	0.57	0.78	178	0.86	0.73	0.99	334	0.76	0.68	0.84	
tetralogy of Fallot	97	0.42	0.34	0.50	111	0.54	0.44	0.64	208	0.47	0.41	0.54	↗
ventricular septal defect	919	3.97	3.71	4.23	766	3.70	3.44	3.97	1,685	3.84	3.66	4.03	
hypoplastic left heart syndrome	61	0.26	0.20	0.33	71	0.34	0.26	0.42	132	0.30	0.25	0.35	
other heart anomalies	2,252	9.73	9.33	10.13	2,050	9.91	9.48	10.34	4,302	9.82	9.52	10.11	
Other Circulatory System Anomalies	**2,585**	**11.17**	**10.74**	**11.60**	**2,581**	**12.48**	**12.00**	**12.96**	**5,166**	**11.79**	**11.47**	**12.11**	
patent ductus arteriosus	1,226	5.30	5.00	5.59	1,352	6.54	6.19	6.89	2,578	5.88	5.66	6.11	↗
Anomalies of Respiratory System	**684**	**2.96**	**2.73**	**3.18**	**687**	**3.32**	**3.07**	**3.57**	**1,371**	**3.13**	**2.96**	**3.29**	
Cleft Palate/Cleft Lip	**797**	**3.44**	**3.20**	**3.68**	**702**	**3.39**	**3.14**	**3.65**	**1,499**	**3.42**	**3.25**	**3.59**	
Anomalies of Upper Alimentary Tract	**1,663**	**7.19**	**6.84**	**7.53**	**1,460**	**7.06**	**6.70**	**7.42**	**3,123**	**7.13**	**6.88**	**7.38**	
tracheoesophageal fistula	82	0.35	0.28	0.43	62	0.30	0.23	0.37	144	0.33	0.27	0.38	
pyloric stenosis	250	1.08	0.95	1.21	253	1.22	1.07	1.37	503	1.15	1.05	1.25	
other anomalies of alimentary tract	1,331	5.75	5.44	6.06	1,145	5.54	5.22	5.86	2,476	5.65	5.43	5.87	
Other Anomalies of Digestive System	**665**	**2.87**	**2.66**	**3.09**	**669**	**3.23**	**2.99**	**3.48**	**1,334**	**3.04**	**2.88**	**3.21**	
Anomalies of Genital Organs	**3,233**	**13.97**	**13.49**	**14.45**	**2,631**	**12.72**	**12.23**	**13.21**	**5,864**	**13.38**	**13.04**	**13.72**	
Anomalies of Urinary System	**1,443**	**6.24**	**5.91**	**6.56**	**1,417**	**6.85**	**6.49**	**7.21**	**2,860**	**6.53**	**6.29**	**6.77**	
renal agenesis	134	0.58	0.48	0.68	146	0.71	0.59	0.82	280	0.64	0.56	0.71	
cystic kidney disease	197	0.85	0.73	0.97	177	0.86	0.73	0.98	374	0.85	0.77	0.94	
other urinary anomalies	1,112	4.81	4.52	5.09	1,094	5.29	4.98	5.60	2,206	5.03	4.82	5.24	
Congenital Musculoskeletal Deformities	**6,401**	**27.66**	**26.98**	**28.34**	**5,689**	**27.51**	**26.79**	**28.22**	**12,090**	**27.59**	**27.10**	**28.08**	
anomalies of spine	125	0.54	0.45	0.63	116	0.56	0.46	0.66	241	0.55	0.48	0.62	
congenital dislocation of hip	2,107	9.10	8.72	9.49	1,854	8.96	8.56	9.37	3,961	9.04	8.76	9.32	
varus, valgus, clubfoot	1,336	5.77	5.46	6.08	1,157	5.59	5.27	5.92	2,493	5.69	5.47	5.91	
polydactyly, syndactyly	532	2.30	2.10	2.49	579	2.80	2.57	3.03	1,111	2.54	2.39	2.68	
limb reductions	167	0.72	0.61	0.83	135	0.65	0.54	0.76	302	0.69	0.61	0.77	
chondro/ osteo dystrophies	113	0.49	0.40	0.58	91	0.44	0.35	0.53	204	0.47	0.40	0.53	
other musculoskeletal deformities	2,020	8.73	8.35	9.11	1,757	8.49	8.10	8.89	3,777	8.62	8.34	8.89	
Anomalies of the Integument	**1,345**	**5.81**	**5.50**	**6.12**	**1,352**	**6.54**	**6.19**	**6.89**	**2,697**	**6.15**	**5.92**	**6.39**	
hemangioma and lymphangioma	373	1.61	1.45	1.78	349	1.69	1.51	1.86	722	1.65	1.53	1.77	
other anomalies of integument	972	4.20	3.94	4.46	1,003	4.85	4.55	5.15	1,975	4.51	4.31	4.71	
Chromosomal Anomalies	**850**	**3.67**	**3.43**	**3.92**	**827**	**4.00**	**3.73**	**4.27**	**1,677**	**3.83**	**3.64**	**4.01**	
Down's syndrome	405	1.75	1.58	1.92	371	1.79	1.61	1.98	776	1.77	1.65	1.90	
Turner's syndrome	53	0.23	0.17	0.29	45	0.22	0.15	0.28	98	0.22	0.18	0.27	
other chromosomal anomalies	392	1.69	1.53	1.86	411	1.99	1.80	2.18	803	1.83	1.71	1.96	
Multiple & Multiple System Anomalies	**441**	**1.91**	**1.73**	**2.08**	**437**	**2.11**	**1.91**	**2.31**	**878**	**2.00**	**1.87**	**2.14**	
Other and Unspecified Anomalies	**430**	**1.86**	**1.68**	**2.03**	**291**	**1.41**	**1.25**	**1.57**	**721**	**1.65**	**1.53**	**1.77**	↘
Total Diagnoses	**27,849**	**120.34**	**118.93**	**121.76**	**24,409**	**118.01**	**116.53**	**119.49**	**52,258**	**119.24**	**118.22**	**120.27**	
Total Cases	**18,104**				**14,875**				**32,979**				
Total Births	**231,416**				**206,832**				**438,248**				

Notes: Rates per 1,000 total births. TR - Trends at 5% of significance level, based on rates for individual years using the most recent ten years only
↗ indicates a statistically significantly positive (increasing) trend and
↘ indicates a statistically significantly negative (decreasing) trend
C. I. Confidence Interval
An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category.
Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Figure 1
Trends of Congenital Anomalies for Total Births
All Congenital Anomalies
British Columbia, 1993 - 2002

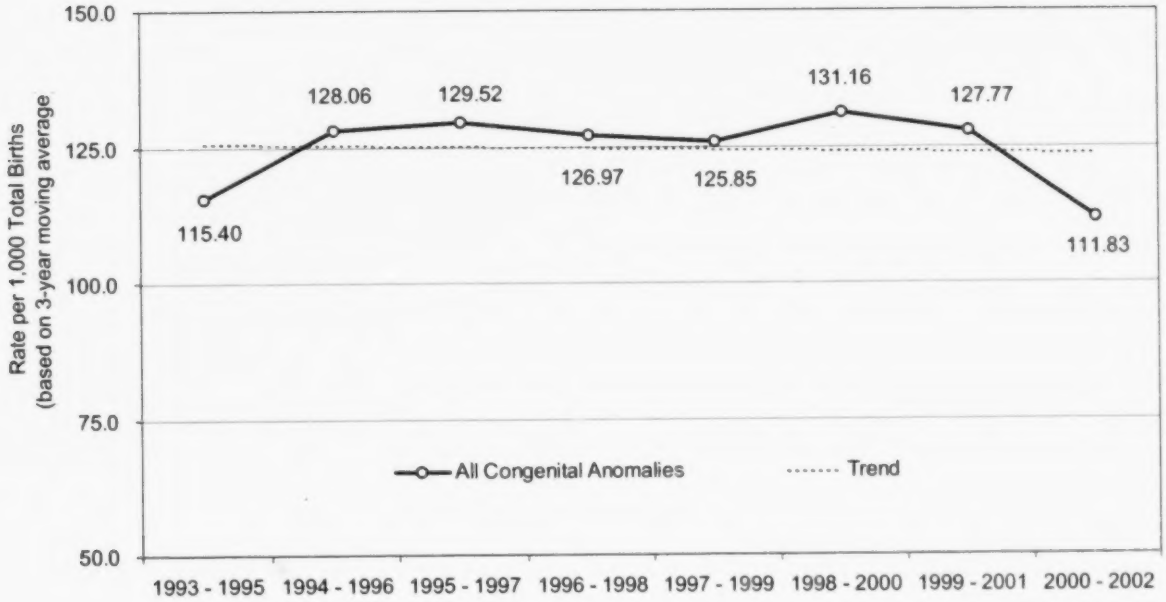


Figure 2
Trends of Congenital Anomalies for Total Births
Anencephalus & Similar Defects
British Columbia, 1993 - 2002

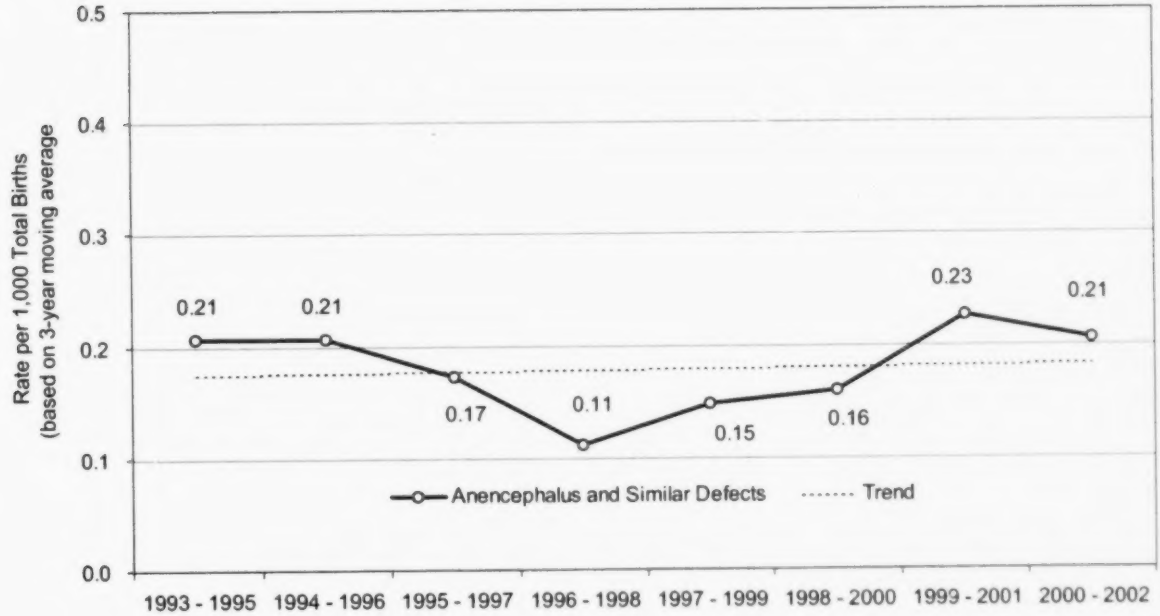


Figure 3
Trends of Congenital Anomalies for Total Births
Other Neural Tube Defects
British Columbia, 1993 - 2002

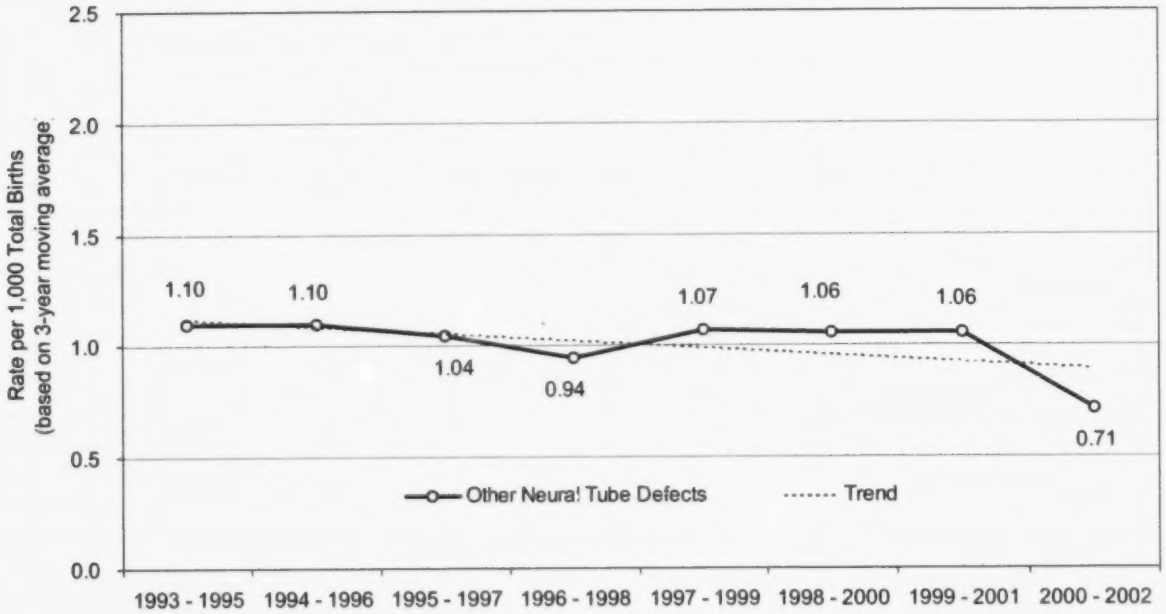


Figure 4
Trends of Congenital Anomalies for Total Births
Hydrocephalus
British Columbia, 1993 - 2002

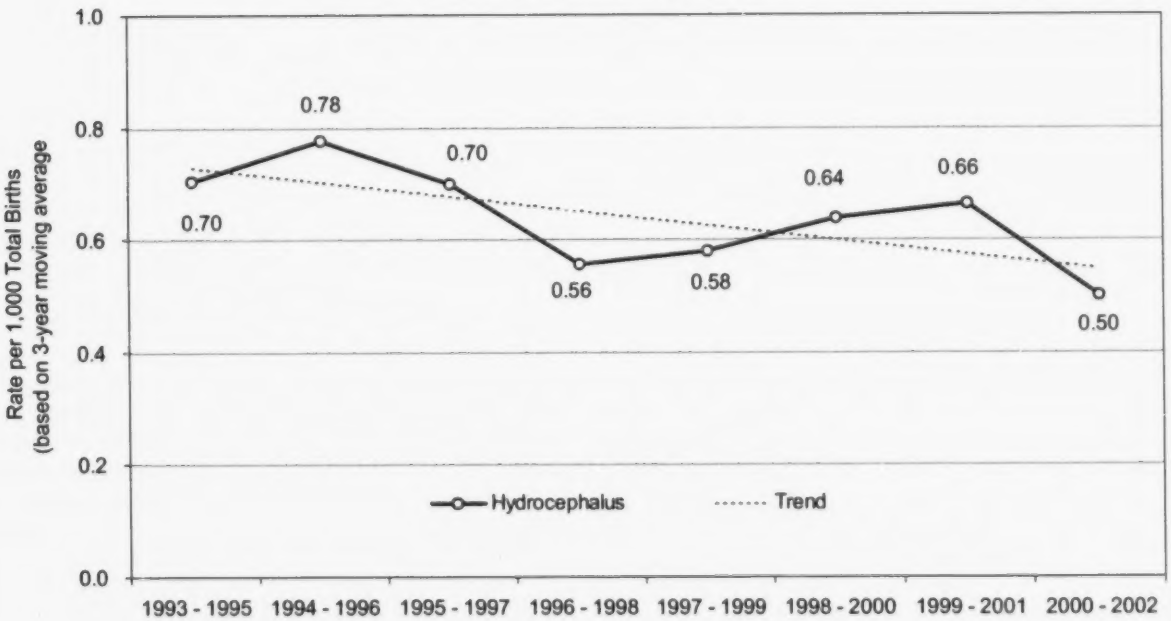


Figure 5
Trends of Congenital Anomalies for Total Births
Ventricular Septal Defect
British Columbia, 1993 - 2002

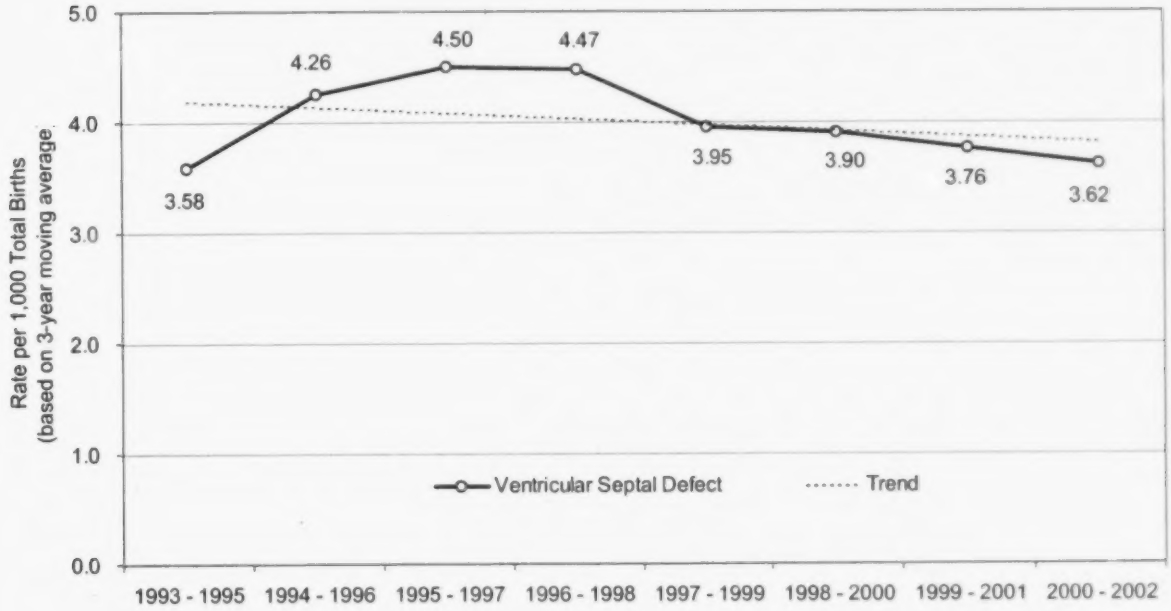


Figure 6
Trends of Congenital Anomalies for Total Births
Patent Ductus Arteriosus
British Columbia, 1993 - 2002

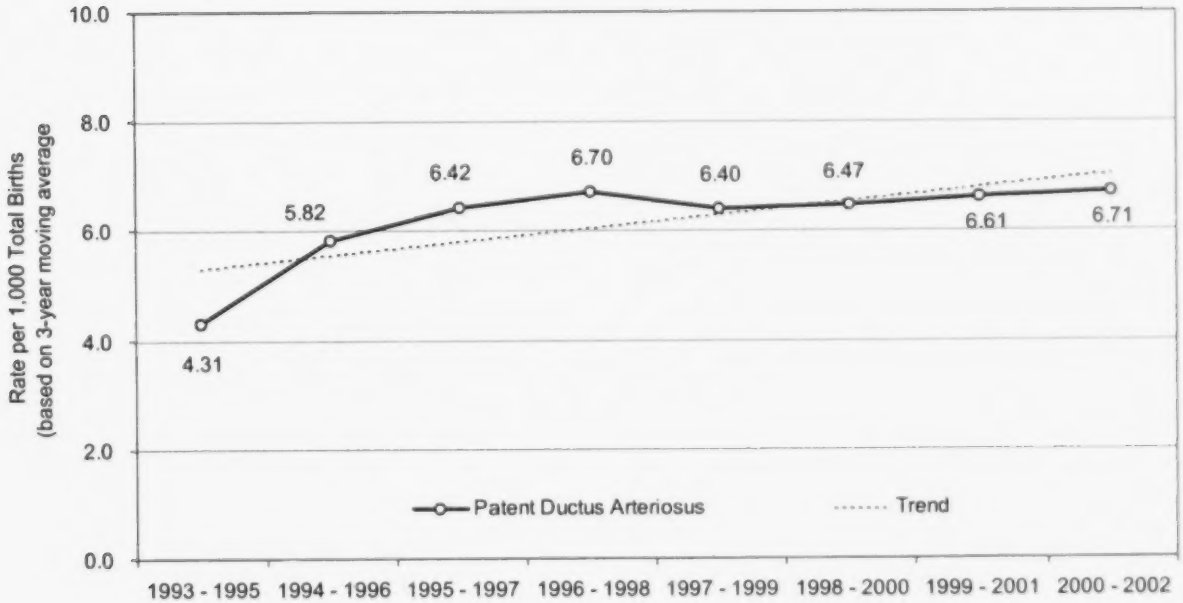


Figure 7
Trends of Congenital Anomalies for Total Births
Cleft Palate/Cleft Lip
British Columbia, 1993 - 2002

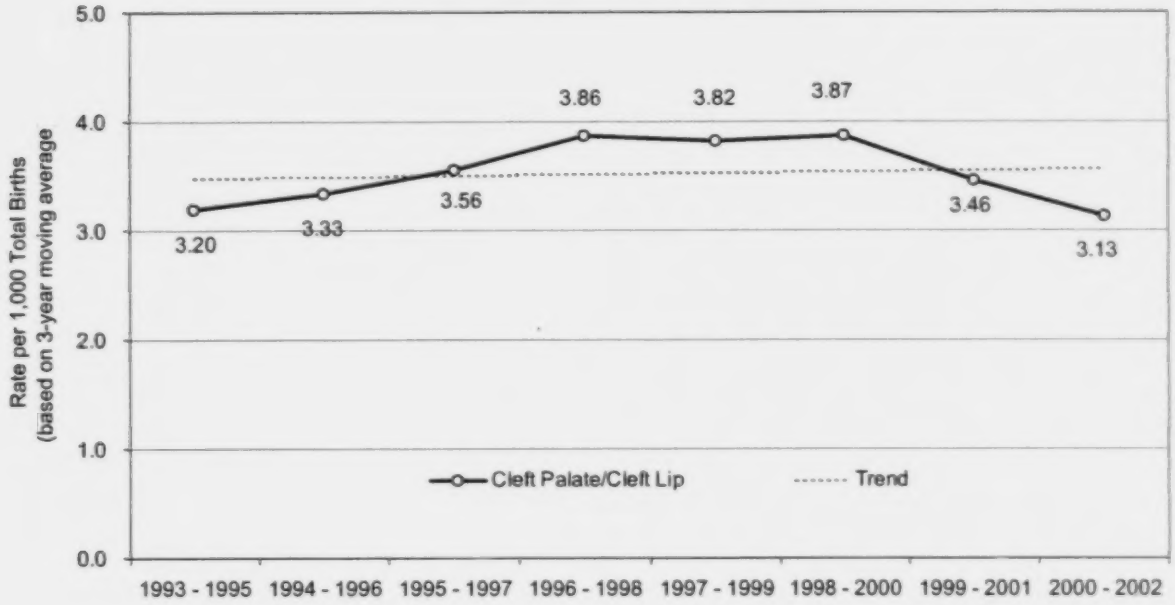


Figure 8
Trends of Congenital Anomalies for Total Births
Congenital Dislocation of Hip
British Columbia, 1993 - 2002

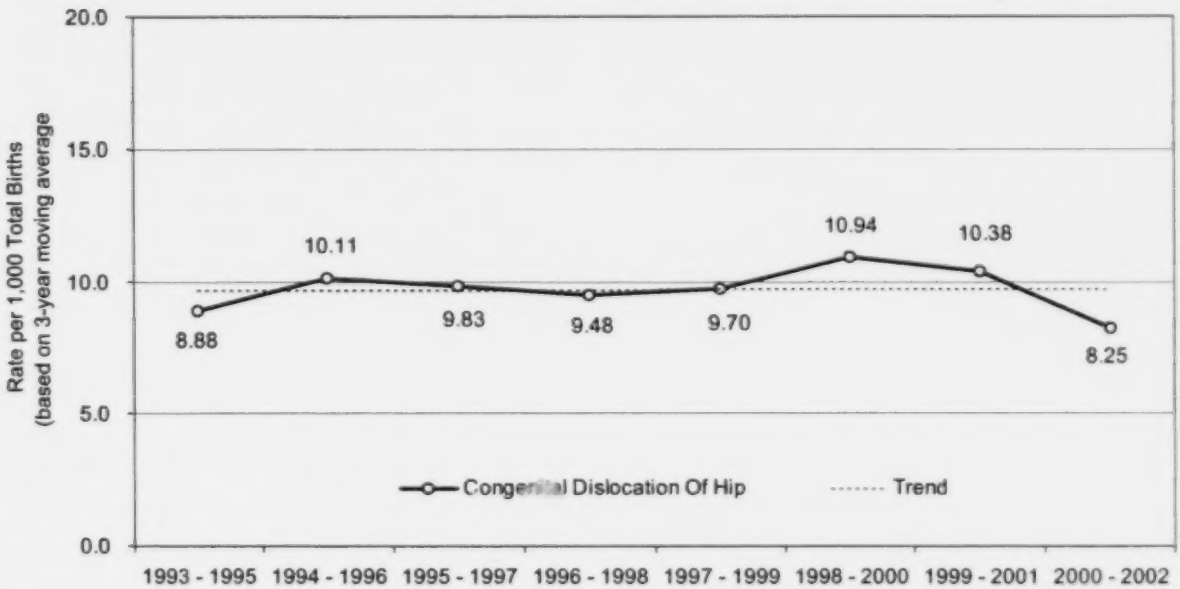


Figure 9
Trends of Congenital Anomalies for Total Births
Varus, Valgus, Clubfoot
British Columbia, 1993 - 2002

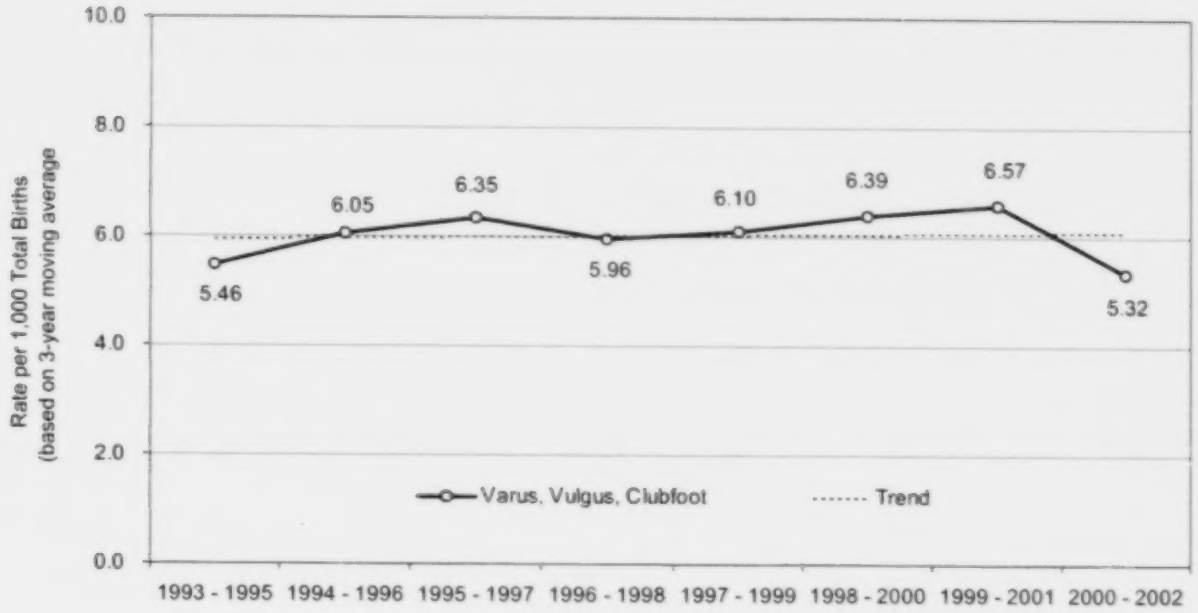


Figure 10
Trends of Congenital Anomalies for Total Births
Polydactyly, Syndactyly
British Columbia, 1993 - 2002

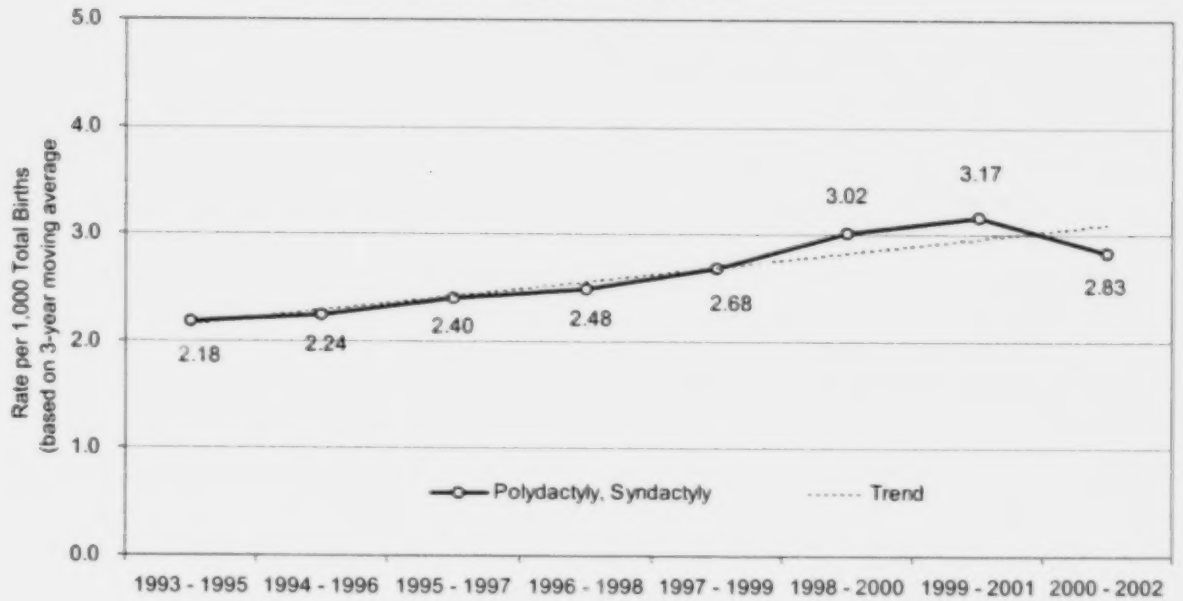


Figure 11
Trends of Congenital Anomalies for Total Births
Limb Reductions
British Columbia, 1993 - 2002

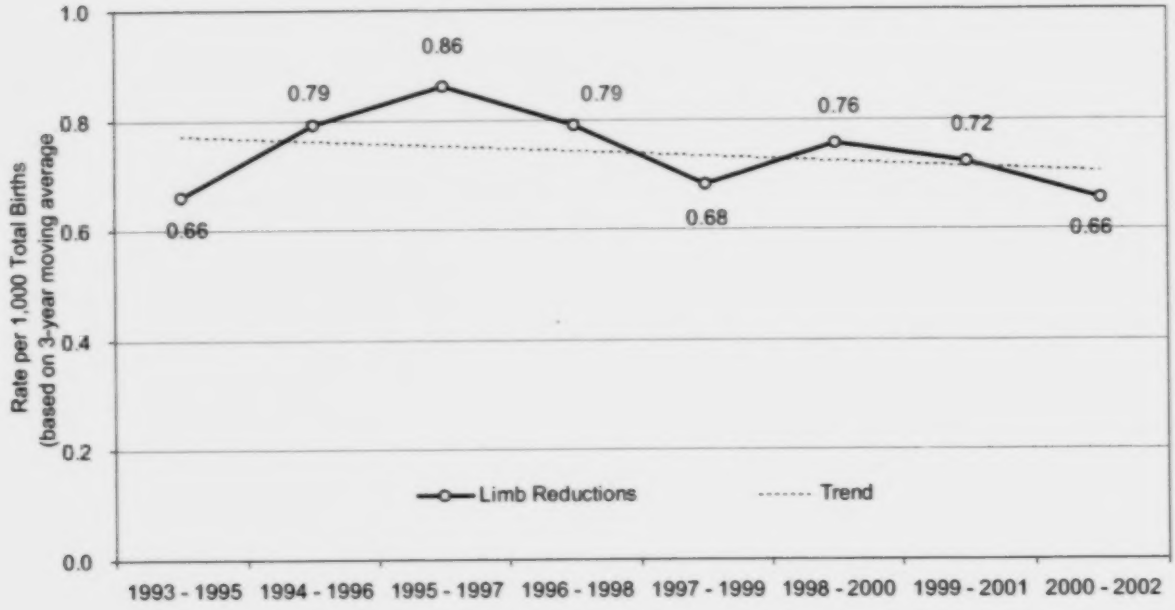
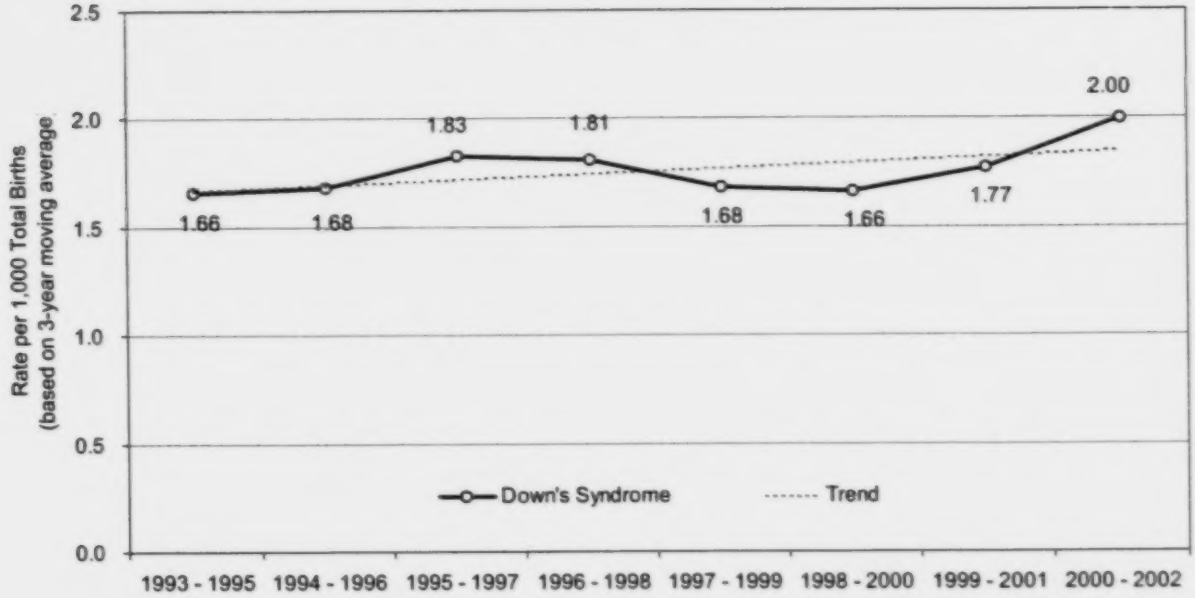


Figure 12
Trends of Congenital Anomalies for Total Births
Down's Syndrome
British Columbia, 1993 - 2002



Information Box

Collaborative Research by the Health Status Registry

The HSR is active in a number of international and national collaborative research projects. Among them are:

International Clearinghouse of Birth Defects Monitoring Systems (ICBDMS)

The ICBDMS is an affiliate of the World Health organization that collects and analyses data from participant birth defect registries to systematically monitor congenital malformations within the participant populations. As the only full member of the ICBDMS in Canada, the HSR provides data on the incidence of birth defects within BC to disseminate in ICBDMS quarterly and annual reports.

HSR also participates in several ICBDMS research studies such as the International Database on Craniofacial Anomalies (IDCFA) and the production of the *World Atlas of Birth Defects*.

Additional information about the ICBDMS can be found at http://www.icbd.org/.

Canadian Congenital Anomalies Surveillance Network (CCASN)

The CCASN was established in 2002, under the umbrella of the Canadian Perinatal Surveillance System (CPSS). It is a national framework to support interdisciplinary collaboration and networking, bridging together research, surveillance and clinical and public health practices, with the ultimate goal of enhancing the quality of surveillance data and expanding our understanding of congenital anomalies. The HSR is an active member of this organization and contributes to the governance and research activities of CCASN.

For more information about the CCASN, see http://www.phac-aspc.gc.ca/ccasn-rcsac/.

Impact of Folic Acid Fortification on the Epidemiology of Neural Tube Defects in Canada

This is a national, long-term study of Neural Tube Defects. The main objective of the study is to evaluate the impact of Folic Acid fortification of food in reducing the frequency of neural tube defects in seven Canadian provinces, comparing total prevalence rates in the period 1993-1997 before fortification was mandatory, and in the period 2000-2002 after fortification was fully implemented. The HSR is a full partner in this study, the results of which will be available in a few years.

Section 2: Congenital Anomalies by Health Authority and Health Service Delivery Area

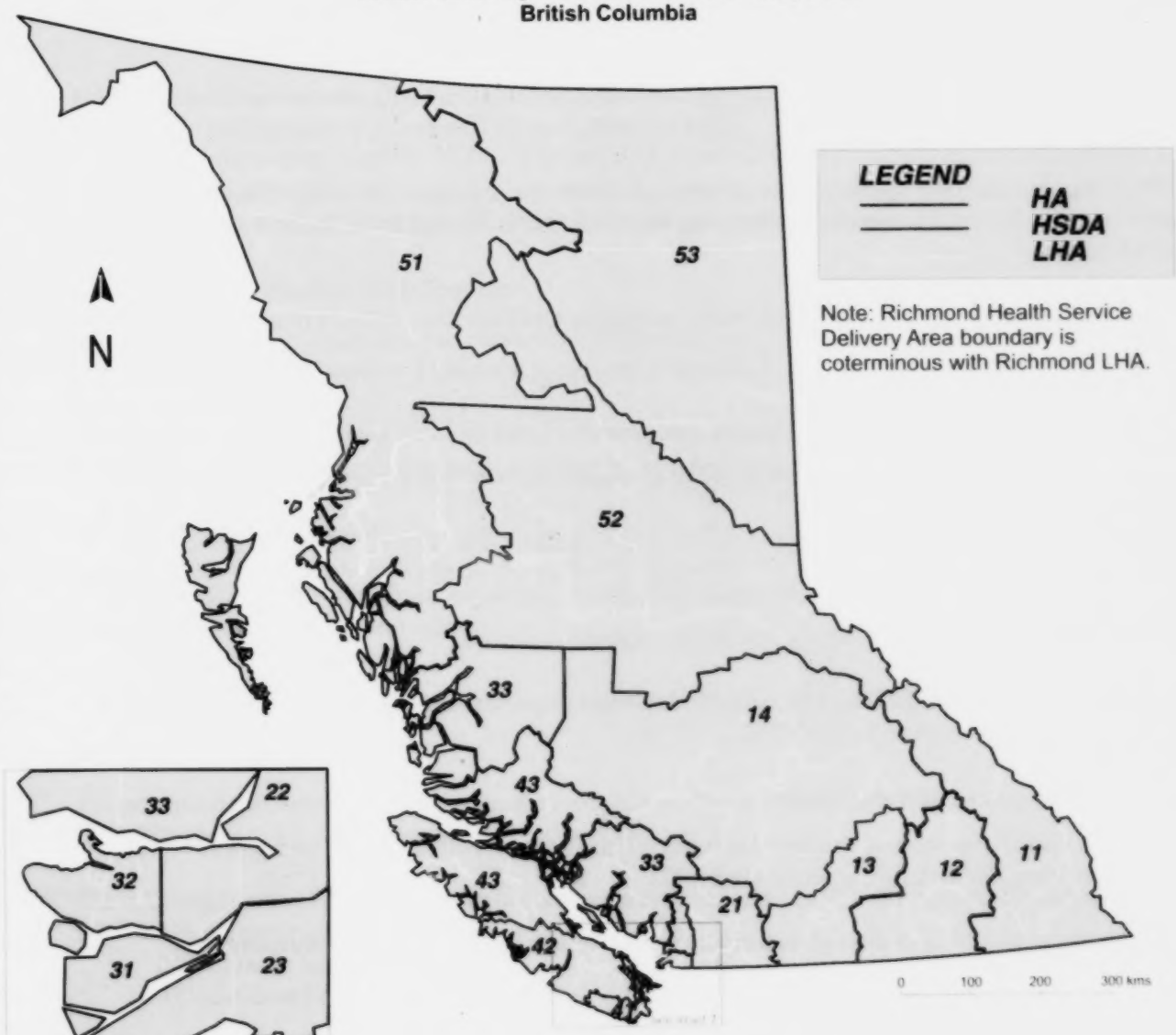
Overview

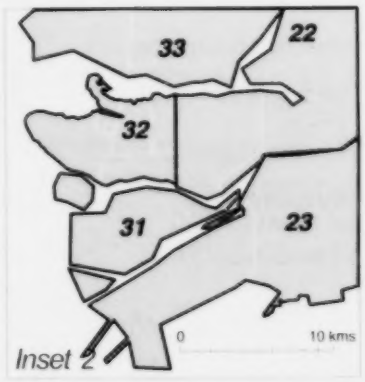
The previous section of this report provided information at the provincial level about congenital anomalies reported to the Health Status Registry. This section begins the analysis of congenital anomalies at the sub provincial level. British Columbia is divided into six health authorities (HA). Each health authority consists of health service delivery areas (HSDAs), which are, in turn, comprised of local health areas (LHA). Geographic assignment is based on the mother's address at the time she gave birth.

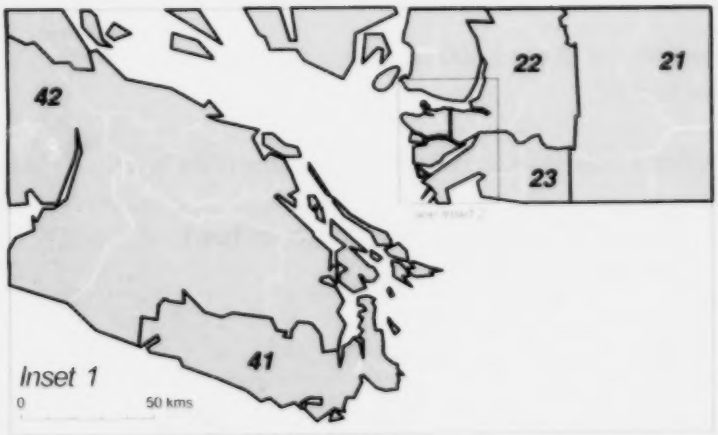
The analysis by geographic areas begins with a series of tables providing the incidence of congenital anomalies for single years of birth for each HA, and then for each HSDA. These tables allow the reader to assess the types and frequencies of congenital anomalies of most concern in a specific sub provincial area. Next, several years of data are combined in tables showing counts and rates of selected congenital anomaly categories across the areas. The information on congenital anomalies concludes with tables and maps providing statistics by local health area.

The reader is again referred to Appendix 1 for the complete list of congenital anomaly categories and codes. Caveats affecting the data can be found in the Guide to Data Interpretation in the General Information section at the beginning of this report.

Figure 13
Health Authority & Health Service Delivery Area
British Columbia







Health Authorities		Health Service Delivery Areas	
01	Interior	11	East Kootenay
		12	Kootenay Boundary
		13	Okanagan
		14	Thompson Cariboo Shuswap
02	Fraser	21	Fraser East
		22	Fraser North
		23	Fraser South
03	Vancouver Coastal	31	Richmond
		32	Vancouver
		33	North Shore/Coast Garibaldi
04	Vancouver Island	41	South Vancouver Island
		42	Central Vancouver Island
		43	North Vancouver Island
05	Northern	51	Northwest
		52	Northern Interior
		53	Northeast
06	Provincial Health Services Authority		

Health Authority Highlights

Table 4 shows reported congenital anomaly diagnoses by year of birth for 1993-2002 for the Province, while Tables 5 to 9 provide the same information by Health Authority (HA).

Congenital Anomaly Diagnoses and Cases

A total of 32,979 cases born in 1993-2002 were reported to HSR with 52,258 congenital anomaly diagnoses. The provincial rate for congenital anomaly cases was 75.25 per 1,000 total births. The provincial rate for congenital anomaly diagnoses was 119.24 per 1,000 total births for the ten-year period 1993-2002.

The HAs with statistically significant high ratios for congenital anomaly cases (with the number of cases, followed by the rates) were:

03 Vancouver Coastal	1.06	8,132	79.56
02 Fraser	1.03	12,716	77.65

The HAs with statistically significant low ratios for congenital anomaly cases (with the number of cases, followed by the rates) were:

01 Interior	0.92	4,525	69.53
04 Vancouver Island	0.93	4,578	69.87

HA 05 Northern was not statistically significant for congenital anomalies.

The pattern of statistical significance for congenital anomaly diagnoses at the HA level was identical to that for congenital anomaly cases for 1993-2002.

Congenital Nervous System Defects

There were 2,122 diagnoses of congenital nervous system defects reported to HSR; the rate was 4.84 per 1,000 total births for the ten-year period 1993-2002.

There were no Health Authorities with statistically significant high ratios for congenital nervous system defects.

HA 03 Vancouver Coastal HA showed a statistically significant low ratio (0.89) for congenital nervous system defects (with 440 diagnoses and a rate of 4.30).

Congenital Anomalies of the Heart

The provincial rate for congenital anomalies of the heart was 15.20 per 1,000 total births for the ten-year period 1993-2002 based on 6,661 diagnoses reported to HSR.

There were no Health Authorities with statistically significant high ratios for congenital anomalies of the heart.

HA 02 Fraser had a statistically significant low ratio between observed and expected congenital heart defects (0.94) with 2,331 diagnoses and a rate of 14.23 per 1,000 total births.

Cleft Palate/Cleft Lip

The provincial rate for cleft palate/cleft lip was 3.42 per 1,000 total births for the ten-year period 1993-2002 based on 1,499 diagnoses reported to HSR.

HA 05 Northern had a statistically significant high ratio between observed and expected cleft palate/cleft lip (1.19) with 169 diagnoses and a rate of 4.07 per 1,000 total births.

HA 03 Vancouver Coastal had a statistically significant low ratio between observed and expected cleft palate/cleft lip (0.89) with 311 diagnoses and a rate of 3.04 per 1,000 total births.

Congenital Musculoskeletal Deformities

The provincial rate for congenital musculoskeletal deformities was 27.59 per 1,000 total births for the ten-year period 1993-2002 based on 12,090 diagnoses reported to HSR.

The HAs with statistically significant high ratios between observed and expected congenital musculoskeletal deformities (with the number of diagnoses, followed by the rates) were:

02 Fraser	1.09	4,922	30.06
03 Vancouver Coastal	1.09	3,080	30.13

The HAs with statistically significant low ratios for congenital musculoskeletal deformities (with the number of diagnoses, followed by the rates) were:

04 Vancouver Island	0.81	1,466	22.37
01 Interior	0.85	1,524	23.42

Chromosomal Anomalies

The provincial rate for chromosomal anomalies was 3.83 per 1,000 total births for the ten-year period 1993-2002 based on 1,677 diagnoses reported to HSR.

The HAs with statistically significant high ratios for chromosomal anomalies (with the number of diagnoses, followed by the rates) were:

04 Vancouver Island	1.14	287	4.38
03 Vancouver Coastal	1.13	441	4.31

HA 05 Interior had a statistically significant low ratio between observed and expected chromosomal anomalies (0.67) with 106 diagnoses and a rate of 2.55 per 1,000 total births.

Table 4

Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth British Columbia, 1993-2002

Provincial Total

Diagnosis	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	1993-2002 Obs	1993-2002 Rate
Nervous System Defects	**210**	**227**	**300**	**254**	**215**	**195**	**215**	**194**	**194**	**118**	**2,122**	**4.84**
anencephalus & similar defects	6	10	13	6	5	4	10	6	12	7	79	0.18
other neural tube defects	52	49	53	52	39	36	63	34	34	19	431	0.98
hydrocephalus	24	34	41	34	22	19	34	27	21	13	269	0.61
other nervous system defects	128	134	191	161	147	136	109	127	127	79	1,339	3.06
Anomalies of Eye	**267**	**277**	**281**	**257**	**205**	**214**	**204**	**166**	**128**	**66**	**2,065**	**4.71**
Anomalies of Ear, Face, Neck	**253**	**310**	**280**	**272**	**219**	**184**	**179**	**190**	**143**	**100**	**2,130**	**4.86**
Anomalies of Heart	**472**	**632**	**836**	**794**	**751**	**786**	**575**	**707**	**574**	**534**	**6,661**	**15.20**
transposition of great vessels	17	22	39	37	41	45	37	49	22	25	334	0.76
tetralogy of Fallot	16	17	23	19	22	25	20	25	21	20	208	0.47
ventricular septal defect	132	165	207	225	190	186	139	167	158	116	1,685	3.84
hypoplastic left heart syndrome	8	10	17	15	11	17	10	9	18	17	132	0.30
other heart anomalies	299	418	550	498	487	513	369	457	355	356	4,302	9.82
Other Circulatory System Anomalies	**277**	**501**	**589**	**648**	**570**	**592**	**510**	**512**	**514**	**453**	**5,166**	**11.79**
patent ductus arteriosus	113	228	266	322	297	280	255	280	281	256	2,578	5.88
Anomalies of Respiratory System	**102**	**137**	**149**	**141**	**155**	**141**	**151**	**167**	**129**	**99**	**1,371**	**3.13**
Cleft Palate/Cleft Lip	**153**	**154**	**142**	**172**	**176**	**170**	**151**	**166**	**110**	**105**	**1,499**	**3.42**
Anomalies of Upper Alimentary Tract	**266**	**349**	**375**	**355**	**318**	**295**	**349**	**344**	**296**	**176**	**3,123**	**7.13**
tracheoesophageal fistula	9	22	19	12	20	17	11	13	11	10	144	0.33
pyloric stenosis	27	50	64	63	46	51	57	48	47	50	503	1.15
other anomalies of alimentary tract	230	277	292	280	252	227	281	283	238	116	2,476	5.65
Other Anomalies of Digestive System	**104**	**125**	**155**	**137**	**144**	**149**	**135**	**164**	**128**	**93**	**1,334**	**3.04**
Anomalies of Genital Organs	**537**	**669**	**674**	**741**	**612**	**557**	**628**	**706**	**517**	**223**	**5,864**	**13.38**
Anomalies of Urinary System	**292**	**266**	**325**	**286**	**274**	**327**	**286**	**310**	**271**	**223**	**2,860**	**6.53**
renal agenesis	27	32	23	32	20	31	37	33	16	29	280	0.64
cystic kidney disease	40	34	41	49	33	47	27	48	34	21	374	0.85
other urinary anomalies	225	200	261	205	221	249	222	229	221	173	2,206	5.03
Congenital Musculoskeletal Deformities	**932**	**1,318**	**1,469**	**1,377**	**1,305**	**1,272**	**1,341**	**1,423**	**1,052**	**601**	**12,090**	**27.59**
anomalies of spine	24	26	22	28	25	25	22	27	26	16	241	0.55
congenital dislocation of hip	276	472	501	447	411	414	434	526	322	158	3,961	9.04
varus, valgus, clubfoot	203	257	308	285	283	232	277	294	241	113	2,493	5.69
polydactyly, syndactyly	103	98	105	112	114	107	127	145	119	81	1,111	2.54
limb reductions	22	26	45	40	34	32	23	40	26	14	302	0.69
chondro/ osteo dystrophies	32	12	24	25	20	38	18	14	14	7	204	0.47
other musculoskeletal deformities	272	427	464	440	417	424	440	377	304	212	3,777	8.62
Anomalies of the Integument	**166**	**345**	**292**	**283**	**259**	**178**	**348**	**328**	**324**	**174**	**2,697**	**6.15**
hemangioma and lymphangioma	48	82	77	88	78	55	103	82	73	36	722	1.65
other anomalies of integument	118	263	215	195	181	123	245	246	251	138	1,975	4.51
Chromosomal Anomalies	**128**	**157**	**183**	**186**	**196**	**178**	**142**	**176**	**170**	**161**	**1,677**	**3.83**
Down's syndrome	78	75	80	81	91	71	57	81	80	82	776	1.77
Turner's syndrome	10	8	10	14	11	8	9	11	9	8	98	0.22
other chromosomal anomalies	40	74	93	91	94	99	76	84	81	71	803	1.83
Multiple & Multiple System Anomalies	**70**	**98**	**109**	**78**	**86**	**89**	**90**	**101**	**92**	**65**	**878**	**2.00**
Other and Unspecified Anomalies	**80**	**87**	**104**	**85**	**74**	**86**	**70**	**62**	**48**	**25**	**721**	**1.65**
Total Diagnoses	**4,309**	**5,652**	**6,263**	**6,066**	**5,559**	**5,413**	**5,374**	**5,716**	**4,690**	**3,216**	**52,258**	**119.24**
(Rate /1,000 total births)	**(93.2)**	**(119.9)**	**(133.1)**	**(131.2)**	**(124.3)**	**(125.5)**	**(127.8)**	**(140.2)**	**(115.3)**	**(80.0)**		
Total Cases	**2,945**	**3,824**	**3,972**	**3,891**	**3,472**	**3,159**	**3,431**	**3,465**	**2,965**	**1,855**	**32,979**	**75.25**
(Rate /1,000 total births)	**(63.7)**	**(81.1)**	**(84.4)**	**(84.1)**	**(77.6)**	**(73.2)**	**(81.6)**	**(85.0)**	**(72.9)**	**(46.1)**		
Total Births	**46,248**	**47,141**	**47,047**	**46,248**	**44,732**	**43,144**	**42,041**	**40,773**	**40,675**	**40,199**	**438,248**	

Notes: Rate per 1,000 Total births (Live births and Stillbirths). Observed are counts of the specified congenital anomalies recorded in the HSR for births for the years shown. An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category. Total births include BC residents with unknown addresses.

Table 5

Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth British Columbia, 1993-2002

01 Interior HA

Diagnosis	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	1993-2002 Obs	Exp	Ratio	(p)	Rate
Nervous System Defects	**31**	**27**	**46**	**34**	**24**	**34**	**29**	**45**	**24**	**13**	**307**	**315.1**	**0.97**		**4.72**
anencephalus & similar defects	-	1	1	1	3	-	1	-	5	1	13	11.7	1.11		0.20
other neural tube defects	8	3	9	2	4	7	8	14	4	3	62	64.0	0.97		0.95
hydrocephalus	4	4	8	10	1	2	4	5	2	-	40	39.9	1.00		0.61
other nervous system defects	19	19	28	21	15	25	16	26	13	9	191	198.9	0.96		2.93
Anomalies of Eye	**40**	**41**	**46**	**28**	**39**	**32**	**35**	**27**	**16**	**4**	**308**	**306.7**	**1.00**		**4.73**
Anomalies of Ear, Face, Neck	**46**	**44**	**50**	**45**	**19**	**17**	**18**	**22**	**9**	**7**	**277**	**316.3**	**0.88**	-	**4.26**
Anomalies of Heart	**64**	**118**	**135**	**117**	**150**	**86**	**84**	**100**	**116**	**69**	**1,039**	**989.2**	**1.05**		**15.96**
transposition of great vessels	1	3	4	2	10	-	5	3	6	5	39	49.6	0.79		0.60
tetralogy of Fallot	-	2	6	3	6	2	2	6	5	2	34	30.9	1.10		0.52
ventricular septal defect	17	27	37	41	37	18	21	23	30	18	269	250.2	1.07		4.13
hypoplastic left heart syndrome	1	2	3	3	2	4	2	1	5	-	23	19.6	1.17		0.35
other heart anomalies	45	84	85	68	95	62	54	67	70	44	674	638.9	1.05		10.36
Other Circulatory System Anomalies	**42**	**79**	**75**	**93**	**87**	**81**	**82**	**87**	**86**	**43**	**755**	**767.2**	**0.98**		**11.60**
patent ductus arteriosus	21	34	32	55	50	37	42	46	49	25	391	382.9	1.02		6.01
Anomalies of Respiratory System	**12**	**28**	**28**	**21**	**18**	**16**	**14**	**35**	**16**	**14**	**202**	**203.6**	**0.99**		**3.10**
Cleft Palate/Cleft Lip	**27**	**21**	**17**	**32**	**24**	**17**	**20**	**42**	**25**	**17**	**242**	**222.6**	**1.09**		**3.72**
Anomalies of Upper Alimentary Tract	**43**	**61**	**63**	**40**	**33**	**39**	**37**	**51**	**44**	**21**	**432**	**463.8**	**0.93**		**6.64**
tracheoesophageal fistula	2	2	4	1	3	2	2	1	1	2	20	21.4	0.94		0.31
pyloric stenosis	1	9	7	10	7	9	8	8	4	5	68	74.7	0.91		1.04
other anomalies of alimentary tract	40	50	52	29	23	28	27	42	39	14	344	367.7	0.94		5.29
Other Anomalies of Digestive System	**21**	**13**	**28**	**18**	**30**	**17**	**23**	**26**	**24**	**9**	**209**	**198.1**	**1.05**		**3.21**
Anomalies of Genital Organs	**73**	**95**	**91**	**92**	**74**	**74**	**88**	**127**	**80**	**26**	**820**	**870.9**	**0.94**		**12.60**
Anomalies of Urinary System	**28**	**32**	**55**	**48**	**34**	**38**	**33**	**45**	**29**	**21**	**363**	**424.7**	**0.85**	-	**5.58**
renal agenesis	3	4	6	4	1	4	5	-	3	1	31	41.6	0.75		0.48
cystic kidney disease	2	6	9	10	3	3	2	7	3	2	47	55.5	0.85		0.72
other urinary anomalies	23	22	40	34	30	31	26	38	23	18	285	327.6	0.87	-	4.38
Congenital Musculoskeletal Deformities	**135**	**162**	**157**	**175**	**129**	**144**	**175**	**214**	**162**	**71**	**1,524**	**1,795.5**	**0.85**	-	**23.42**
anomalies of spine	3	3	5	4	6	4	1	4	5	1	36	35.8	1.01		0.55
congenital dislocation of hip	28	29	34	38	36	29	35	37	29	10	305	588.2	0.52	-	4.69
varus, valgus, clubfoot	27	32	34	25	33	31	53	56	42	14	347	370.2	0.94		5.33
polydactyly, syndactyly	10	19	13	11	13	14	18	23	19	14	154	165.0	0.93		2.37
limb reductions	1	7	6	13	3	6	1	4	4	4	49	44.8	1.09		0.75
chondro/ osteo dystrophies	5	1	1	1	-	2	1	2	2	2	17	30.3	0.56	-	0.26
other musculoskeletal deformities	61	71	64	83	38	58	66	88	61	26	616	560.9	1.10	+	9.46
Anomalies of the Integument	**17**	**43**	**45**	**44**	**37**	**27**	**53**	**75**	**43**	**27**	**411**	**400.5**	**1.03**		**6.31**
hemangioma and lymphangioma	7	11	11	14	16	10	17	18	14	5	123	107.2	1.15		1.89
other anomalies of integument	10	32	34	30	21	17	36	57	29	22	288	293.3	0.98		4.43
Chromosomal Anomalies	**14**	**31**	**22**	**31**	**30**	**20**	**20**	**26**	**21**	**14**	**229**	**249.1**	**0.92**		**3.52**
Down's syndrome	13	15	11	9	16	8	11	10	9	11	113	115.2	0.98		1.74
Turner's syndrome	-	1	2	2	2	1	2	1	-	1	12	14.6	0.82		0.18
other chromosomal anomalies	1	15	9	20	12	11	7	15	12	2	104	119.3	0.87		1.60
Multiple & Multiple System Anomalies	**5**	**18**	**12**	**15**	**12**	**9**	**10**	**21**	**7**	**4**	**113**	**130.4**	**0.87**		**1.74**
Other and Unspecified Anomalies	**16**	**15**	**12**	**12**	**11**	**11**	**11**	**16**	**6**	**2**	**112**	**107.1**	**1.05**		**1.72**
Total Diagnoses	**614**	**828**	**882**	**845**	**751**	**662**	**732**	**959**	**708**	**362**	**7,343**	**7,760.8**	**0.95**	-	**112.82**
(Rate /1,000 total births)	**(86.5)**	**(115.3)**	**(122.2)**	**(121.8)**	**(111.6)**	**(102.4)**	**(117.3)**	**(164.0)**	**(121.2)**	**(65.5)**					
Total Cases	**422**	**542**	**543**	**499**	**472**	**394**	**474**	**535**	**429**	**215**	**4,525**	**4,897.7**	**0.92**	-	**69.53**
(Rate /1,000 total births)	**(59.5)**	**(75.4)**	**(75.2)**	**(71.9)**	**(70.1)**	**(60.9)**	**(75.9)**	**(91.5)**	**(73.4)**	**(38.9)**					
Total Births	**7,095**	**7,184**	**7,217**	**6,936**	**6,729**	**6,468**	**6,241**	**5,847**	**5,841**	**5,526**	**65,084**				

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. Observed are counts of the specified congenital anomalies recorded in the HSR for births for the years shown. HSDA/HA assignment by usual address at time of birth. Diagnosis with unknown HSDA/HA are included in BC Total. An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 6

Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth
British Columbia, 1993-2002

02 Fraser HA

Diagnosis	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	1993-2002 Obs	Exp	Ratio	(p)	Rate
Nervous System Defects	**80**	**83**	**108**	**107**	**99**	**73**	**93**	**74**	**78**	**42**	**837**	**792.9**	**1.06**		**5.11**
anencephalus & similar defects	3	6	10	4	-	3	5	5	3	2	41	29.5	1.39	+	0.25
other neural tube defects	20	16	20	31	18	12	32	13	17	3	182	161.0	1.13		1.11
hydrocephalus	8	13	15	7	7	8	16	11	5	7	97	100.5	0.97		0.59
other nervous system defects	49	48	63	64	74	50	40	45	53	30	516	500.3	1.03		3.15
Anomalies of Eye	**113**	**105**	**105**	**84**	**66**	**88**	**64**	**62**	**46**	**26**	**759**	**771.6**	**0.98**		**4.63**
Anomalies of Ear, Face, Neck	**108**	**117**	**100**	**107**	**97**	**69**	**78**	**86**	**51**	**36**	**849**	**795.9**	**1.07**		**5.18**
Anomalies of Heart	**141**	**193**	**281**	**298**	**251**	**302**	**240**	**278**	**203**	**144**	**2,331**	**2,489.0**	**0.94**	-	**14.23**
transposition of great vessels	3	6	15	22	16	23	25	26	7	5	148	124.8	1.19	+	0.90
tetralogy of Fallot	4	9	5	7	9	7	7	10	10	3	71	77.7	0.91		0.43
ventricular septal defect	39	47	63	73	64	69	53	61	49	29	547	629.6	0.87	-	3.34
hypoplastic left heart syndrome	3	3	7	7	1	9	3	3	2	9	47	49.3	0.95		0.29
other heart anomalies	92	128	191	189	161	194	152	178	135	98	1,518	1,607.5	0.94	-	9.27
Other Circulatory System Anomalies	**109**	**157**	**231**	**228**	**204**	**218**	**192**	**173**	**201**	**147**	**1,860**	**1,930.4**	**0.96**		**11.36**
patent ductus arteriosus	41	72	101	99	107	107	95	95	104	87	908	963.3	0.94		5.54
Anomalies of Respiratory System	**42**	**44**	**58**	**62**	**66**	**50**	**62**	**67**	**47**	**30**	**528**	**512.3**	**1.03**		**3.22**
Cleft Palate/Cleft Lip	**57**	**54**	**43**	**61**	**76**	**69**	**68**	**62**	**45**	**20**	**555**	**560.1**	**0.99**		**3.39**
Anomalies of Upper Alimentary Tract	**108**	**136**	**159**	**146**	**167**	**130**	**154**	**172**	**127**	**84**	**1,383**	**1,167.0**	**1.19**	+	**8.45**
tracheoesophageal fistula	3	8	10	3	6	7	2	5	4	2	50	53.8	0.93		0.31
pyloric stenosis	12	14	30	27	17	21	21	23	18	28	211	188.0	1.12		1.29
other anomalies of alimentary tract	93	114	119	116	144	102	131	144	105	54	1,122	925.2	1.21	+	6.85
Other Anomalies of Digestive System	**39**	**47**	**65**	**59**	**62**	**65**	**42**	**60**	**51**	**29**	**519**	**498.5**	**1.04**		**3.17**
Anomalies of Genital Organs	**188**	**260**	**279**	**298**	**240**	**225**	**232**	**257**	**175**	**95**	**2,249**	**2,191.2**	**1.03**		**13.73**
Anomalies of Urinary System	**108**	**99**	**143**	**101**	**117**	**112**	**117**	**101**	**97**	**67**	**1,062**	**1,068.7**	**0.99**		**6.49**
renal agenesis	10	8	10	13	9	11	11	18	5	7	102	104.6	0.97		0.62
cystic kidney disease	18	9	17	18	18	11	13	20	11	4	139	139.8	0.99		0.85
other urinary anomalies	80	82	116	70	90	90	93	63	81	56	821	824.3	1.00		5.01
Congenital Musculoskeletal Deformities	**349**	**592**	**664**	**580**	**554**	**549**	**502**	**552**	**398**	**182**	**4,922**	**4,517.6**	**1.09**	+	**30.06**
anomalies of spine	9	15	5	10	7	12	6	8	9	2	83	90.1	0.92		0.51
congenital dislocation of hip	114	273	291	229	196	191	188	252	138	50	1,922	1,480.1	1.30	+	11.74
varus, valgus, clubfoot	70	103	131	120	97	105	102	99	87	38	952	931.5	1.02		5.81
polydactyly, syndactyly	39	35	37	48	52	47	46	64	44	32	444	415.1	1.07		2.71
limb reductions	11	11	14	17	11	15	11	19	13	3	125	112.8	1.11		0.76
chondro/ osteo dystrophies	8	3	8	11	11	17	6	5	5	2	76	76.2	1.00		0.46
other musculoskeletal deformities	98	152	178	145	179	162	143	105	102	55	1,319	1,411.3	0.93	-	8.05
Anomalies of the Integument	**65**	**139**	**103**	**87**	**93**	**64**	**111**	**106**	**107**	**70**	**945**	**1,007.8**	**0.94**	-	**5.77**
hemangioma and lymphangioma	18	32	33	28	23	23	30	17	25	14	243	269.8	0.90		1.48
other anomalies of integument	47	107	70	59	70	41	81	89	82	56	702	738.0	0.95		4.29
Chromosomal Anomalies	**36**	**56**	**68**	**66**	**76**	**73**	**56**	**66**	**64**	**53**	**614**	**626.6**	**0.98**		**3.75**
Down's syndrome	25	25	26	31	32	31	25	30	31	31	287	290.0	0.99		1.75
Turner's syndrome	2	2	3	3	3	5	4	7	4	2	35	36.6	0.96		0.21
other chromosomal anomalies	9	29	39	32	41	37	27	29	29	20	292	300.1	0.97		1.78
Multiple & Multiple System Anomalies	**26**	**42**	**38**	**22**	**42**	**25**	**29**	**34**	**38**	**16**	**312**	**328.1**	**0.95**		**1.91**
Other and Unspecified Anomalies	**21**	**27**	**41**	**26**	**31**	**28**	**21**	**23**	**20**	**4**	**242**	**269.4**	**0.90**		**1.48**
Total Diagnoses	**1,590**	**2,151**	**2,486**	**2,332**	**2,241**	**2,140**	**2,061**	**2,173**	**1,748**	**1,045**	**19,967**	**19,527.0**	**1.02**	+	**121.93**
(Rate /1,000 total births)	**(96.3)**	**(126.4)**	**(144.9)**	**(138.2)**	**(135.0)**	**(129.6)**	**(129.2)**	**(139.6)**	**(111.0)**	**(66.0)**					
Total Cases	**1,110**	**1,500**	**1,617**	**1,504**	**1,379**	**1,237**	**1,286**	**1,317**	**1,105**	**661**	**12,716**	**12,323.1**	**1.03**	+	**77.65**
(Rate /1,000 total births)	**(67.3)**	**(88.1)**	**(94.3)**	**(89.2)**	**(83.1)**	**(74.9)**	**(80.6)**	**(84.6)**	**(70.2)**	**(41.7)**					
Total Births	**16,503**	**17,020**	**17,154**	**16,868**	**16,599**	**16,517**	**15,948**	**15,561**	**15,748**	**15,840**	**163,758**				

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected (p<0.05, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. Observed are counts of the specified congenital anomalies recorded in the HSR for births for the years shown. HSDA/HA assignment by usual address at time of birth. Diagnosis with unknown HSDA/HA are included in BC Total. An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 7

Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth British Columbia, 1993-2002

03 Vancouver Coastal HA

Diagnosis	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	1993-2002 Obs	Exp	Ratio	(p)	Rate
Nervous System Defects	44	56	66	42	39	39	35	29	48	42	440	494.9	0.89	-	4.30
anencephalus & similar defects	-	1	1	-	1	1	2	-	-	3	9	18.4	0.49	-	0.09
other neural tube defects	5	14	6	2	8	6	9	-	8	10	68	100.5	0.68	-	0.67
hydrocephalus	8	8	7	7	6	4	8	7	7	4	66	62.7	1.05		0.65
other nervous system defects	31	33	52	33	24	28	16	22	33	25	297	312.3	0.95		2.91
Anomalies of Eye	58	67	64	61	40	43	62	35	29	19	478	481.6	0.99		4.68
Anomalies of Ear, Face, Neck	42	84	55	61	52	61	45	56	51	40	547	496.8	1.10	+	5.35
Anomalies of Heart	134	183	196	193	151	178	132	160	117	149	1,593	1,553.6	1.03		15.58
transposition of great vessels	4	10	10	2	8	8	4	9	1	8	64	77.9	0.82		0.63
tetralogy of Fallot	3	3	4	4	2	9	5	6	1	7	44	48.5	0.91		0.43
ventricular septal defect	45	52	54	61	47	50	41	46	44	31	471	393.0	1.20	+	4.61
hypoplastic left heart syndrome	3	2	2	2	6	4	3	1	5	4	32	30.8	1.04		0.31
other heart anomalies	79	116	126	124	88	107	79	98	66	99	982	1,003.4	0.98		9.61
Other Circulatory System Anomalies	66	128	151	177	139	155	133	128	115	123	1,315	1,204.9	1.09	+	12.86
patent ductus arteriosus	24	61	67	81	74	66	76	72	62	66	649	601.3	1.08		6.35
Anomalies of Respiratory System	26	32	29	28	34	31	38	33	31	25	307	319.8	0.96		3.00
Cleft Palate/Cleft Lip	24	46	27	32	36	35	31	29	17	34	311	349.6	0.89	-	3.04
Anomalies of Upper Alimentary Tract	51	53	54	66	44	51	48	45	47	18	477	728.4	0.65	-	4.67
tracheoesophageal fistula	1	5	1	7	5	6	4	6	3	1	39	33.6	1.16		0.38
pyloric stenosis	11	8	9	7	7	5	5	6	7	6	71	117.3	0.61	-	0.69
other anomalies of alimentary tract	39	40	44	52	32	40	39	33	37	11	367	577.5	0.64	-	3.59
Other Anomalies of Digestive System	22	37	34	28	25	28	42	40	32	30	318	311.1	1.02		3.11
Anomalies of Genital Organs	140	134	149	187	157	126	166	179	138	53	1,429	1,367.7	1.04		13.98
Anomalies of Urinary System	88	70	68	74	64	95	55	85	77	71	747	667.1	1.12	+	7.31
renal agenesis	5	12	5	10	6	3	7	11	6	11	76	65.3	1.16		0.74
cystic kidney disease	10	9	12	8	7	18	3	16	13	8	104	87.2	1.19		1.02
other urinary anomalies	73	49	51	56	51	74	45	58	58	52	567	514.5	1.10	+	5.55
Congenital Musculoskeletal Deformities	258	315	332	309	341	285	393	374	277	196	3,080	2,819.9	1.09	+	30.13
anomalies of spine	7	3	2	4	1	5	7	11	5	6	51	56.2	0.91		0.50
congenital dislocation of hip	107	124	136	139	132	148	167	186	100	64	1,303	923.9	1.41	+	12.75
varus, valgus, clubfoot	49	51	69	58	91	41	66	72	58	19	574	581.5	0.99		5.62
polydactyly, syndactyly	29	29	26	27	22	17	35	23	30	19	257	259.1	0.99		2.51
limb reductions	3	5	10	4	7	3	5	10	4	5	56	70.4	0.80		0.55
chondro/ osteo dystrophies	10	2	4	5	5	2	4	4	2	3	41	47.6	0.86		0.40
other musculoskeletal deformities	53	101	85	72	83	69	109	68	78	80	798	881.0	0.91	-	7.81
Anomalies of the Integument	48	86	70	88	69	35	103	83	113	47	742	629.1	1.18	+	7.26
hemangioma and lymphangioma	14	20	15	29	23	9	32	30	21	8	201	168.4	1.19	+	1.97
other anomalies of integument	34	66	55	59	46	26	71	53	92	39	541	460.7	1.17	+	5.29
Chromosomal Anomalies	40	43	49	42	39	47	34	50	38	59	441	391.1	1.13	+	4.31
Down's syndrome	21	19	20	22	21	20	8	21	17	26	195	181.0	1.08		1.91
Turner's syndrome	3	2	4	1	4	2	2	3	2	4	27	22.9	1.18		0.26
other chromosomal anomalies	16	22	25	19	14	25	24	26	19	29	219	187.3	1.17	+	2.14
Multiple & Multiple System Anomalies	23	23	24	20	15	31	25	25	24	17	227	204.8	1.11		2.22
Other and Unspecified Anomalies	24	19	16	19	12	24	14	15	9	9	161	168.2	0.96		1.58
Total Diagnoses	1,088	1,376	1,384	1,427	1,257	1,264	1,356	1,366	1,163	932	12,613	12,188.8	1.03	+	123.39
(Rate /1,000 total births)	(102.4)	(128.2)	(126.7)	(132.3)	(121.8)	(129.7)	(137.7)	(137.6)	(120.8)	(96.2)					
Total Cases	758	888	897	942	829	767	898	859	768	526	8,132	7,692.1	1.06	+	79.56
(Rate /1,000 total births)	(71.3)	(82.8)	(82.1)	(87.3)	(80.3)	(78.7)	(91.2)	(86.5)	(79.8)	(54.3)					
Total Births	10,625	10,730	10,922	10,787	10,322	9,745	9,851	9,925	9,624	9,687	102,218				

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected (p<0.05, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. Observed are counts of the specified congenital anomalies recorded in the HSR for births for the years shown. HSDA/HA assignment by usual address at time of birth. Diagnosis with unknown HSDA/HA are included in BC Total. An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category

Table 8

Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth
British Columbia, 1993-2002

04 Vancouver Island HA

Diagnosis	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	1993-2002 Obs	Exp	Ratio	(p)	Rate
Nervous System Defects	**33**	**26**	**51**	**55**	**31**	**27**	**34**	**26**	**25**	**10**	**318**	**317.3**	**1.00**		**4.85**
anencephalus & similar defects	2	-	-	-	1	-	-	-	4	1	8	11.8	0.68		0.12
other neural tube defects	8	8	12	12	4	5	6	2	1	-	58	64.4	0.90		0.89
hydrocephalus	2	3	6	10	6	3	4	2	3	-	39	40.2	0.97		0.60
other nervous system defects	21	15	32	33	19	19	25	22	17	9	212	200.2	1.06		3.24
Anomalies of Eye	**35**	**40**	**38**	**63**	**38**	**36**	**31**	**23**	**25**	**12**	**341**	**308.8**	**1.10**		**5.20**
Anomalies of Ear, Face, Neck	**36**	**47**	**52**	**35**	**32**	**24**	**27**	**13**	**19**	**11**	**296**	**318.5**	**0.93**		**4.52**
Anomalies of Heart	**78**	**73**	**153**	**116**	**109**	**114**	**75**	**110**	**70**	**121**	**1,019**	**995.9**	**1.02**		**15.55**
transposition of great vessels	4	1	7	7	4	3	-	8	5	5	44	49.9	0.88		0.67
tetralogy of Fallot	4	2	8	5	2	5	3	-	5	8	42	31.1	1.35		0.64
ventricular septal defect	24	23	38	35	24	30	12	24	20	25	255	251.9	1.01		3.89
hypoplastic left heart syndrome	-	2	2	2	1	-	2	4	1	3	17	19.7	0.86		0.26
other heart anomalies	46	45	98	67	78	76	58	74	39	60	661	643.2	1.03		10.09
Other Circulatory System Anomalies	**40**	**82**	**76**	**94**	**73**	**84**	**60**	**86**	**63**	**91**	**749**	**772.4**	**0.97**		**11.43**
patent ductus arteriosus	18	38	40	53	37	44	27	47	39	49	392	385.5	1.02		5.98
Anomalies of Respiratory System	**9**	**21**	**20**	**15**	**20**	**23**	**14**	**19**	**26**	**22**	**189**	**205.0**	**0.92**		**2.88**
Cleft Palate/Cleft Lip	**28**	**16**	**37**	**24**	**10**	**27**	**20**	**20**	**16**	**24**	**222**	**224.1**	**0.99**		**3.39**
Anomalies of Upper Alimentary Tract	**43**	**73**	**70**	**67**	**40**	**34**	**64**	**38**	**62**	**38**	**529**	**466.9**	**1.13**	+	**8.07**
tracheoesophageal fistula	2	7	3	1	4	1	2	1	3	4	28	21.5	1.30		0.43
pyloric stenosis	2	14	14	13	11	9	10	6	15	9	103	75.2	1.37	+	1.57
other anomalies of alimentary tract	39	52	53	53	25	24	52	31	44	25	398	370.2	1.08		6.07
Other Anomalies of Digestive System	**11**	**21**	**20**	**22**	**15**	**17**	**24**	**18**	**13**	**18**	**179**	**199.5**	**0.90**		**2.73**
Anomalies of Genital Organs	**85**	**110**	**94**	**111**	**73**	**77**	**88**	**69**	**75**	**36**	**818**	**876.8**	**0.93**	-	**12.48**
Anomalies of Urinary System	**33**	**36**	**38**	**44**	**33**	**44**	**40**	**43**	**49**	**48**	**408**	**427.6**	**0.95**		**6.23**
renal agenesis	4	3	2	4	1	6	9	2	2	8	41	41.9	0.98		0.63
cystic kidney disease	2	4	2	8	2	7	3	2	4	3	37	55.9	0.66	-	0.56
other urinary anomalies	27	29	34	32	30	31	28	39	43	37	330	329.8	1.00		5.04
Congenital Musculoskeletal Deformities	**122**	**133**	**205**	**201**	**152**	**157**	**161**	**121**	**116**	**98**	**1,466**	**1,807.7**	**0.81**	-	**22.37**
anomalies of spine	3	2	5	8	8	2	6	1	6	4	45	36.0	1.25		0.69
congenital dislocation of hip	14	26	29	26	29	31	27	24	32	25	263	592.2	0.44	-	4.01
varus, valgus, clubfoot	44	37	51	58	26	30	34	31	32	31	374	372.7	1.00		5.71
polydactyly, syndactyly	18	9	16	15	18	19	20	18	18	12	163	166.1	0.98		2.49
limb reductions	4	1	12	2	6	5	4	-	1	-	35	45.2	0.78		0.53
chondro/ osteo dystrophies	5	3	9	6	2	9	6	3	2	-	45	30.5	1.48	+	0.69
other musculoskeletal deformities	34	55	83	86	63	61	64	44	25	26	541	564.7	0.96		8.26
Anomalies of the Integument	**17**	**47**	**44**	**40**	**25**	**26**	**45**	**37**	**40**	**17**	**338**	**403.3**	**0.84**	-	**5.16**
hemangioma and lymphangioma	6	10	11	9	10	8	17	11	10	4	96	108.0	0.89		1.47
other anomalies of integument	11	37	33	31	15	18	28	26	30	13	242	295.3	0.82	-	3.69
Chromosomal Anomalies	**27**	**20**	**30**	**39**	**28**	**30**	**21**	**22**	**38**	**32**	**287**	**250.7**	**1.14**	+	**4.38**
Down's syndrome	13	12	16	18	13	8	7	15	18	13	133	116.0	1.15		2.03
Turner's syndrome	5	2	1	3	2	-	1	-	3	-	17	14.7	1.16		0.26
other chromosomal anomalies	9	6	13	18	13	22	13	7	17	19	137	120.1	1.14		2.09
Multiple & Multiple System Anomalies	**8**	**9**	**24**	**11**	**15**	**15**	**14**	**15**	**15**	**15**	**141**	**131.3**	**1.07**		**2.15**
Other and Unspecified Anomalies	**8**	**16**	**27**	**17**	**11**	**12**	**11**	**7**	**8**	**6**	**123**	**107.8**	**1.14**		**1.88**
Total Diagnoses	**613**	**770**	**979**	**954**	**705**	**747**	**729**	**667**	**660**	**599**	**7,423**	**7,813.5**	**0.95**	-	**113.28**
(Rate /1,000 total births)	**(83.1)**	**(103.9)**	**(136.3)**	**(135.6)**	**(105.5)**	**(118.3)**	**(118.2)**	**(116.0)**	**(111.2)**	**(105.7)**					
Total Cases	**420**	**540**	**573**	**581**	**445**	**419**	**460**	**424**	**411**	**305**	**4,578**	**4,931.0**	**0.93**	-	**69.87**
(Rate /1,000 total births)	**(56.9)**	**(72.9)**	**(79.8)**	**(82.6)**	**(66.6)**	**(66.3)**	**(74.6)**	**(73.8)**	**(69.2)**	**(53.8)**					
Total Births	**7,375**	**7,410**	**7,181**	**7,037**	**6,683**	**6,317**	**6,170**	**5,748**	**5,937**	**5,668**	**65,526**				

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. Observed are counts of the specified congenital anomalies recorded in the HSR for births for the years shown. HSDA/HA assignment by usual address at time of birth. Diagnosis with unknown HSDA/HA are included in BC Total. An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 9

Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth British Columbia, 1993-2002

05 Northern HA

Diagnosis	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	1993-2002 Obs	Exp	Ratio	(p)	Rate
Nervous System Defects	**22**	**35**	**29**	**16**	**22**	**22**	**24**	**20**	**19**	**11**	**220**	**201.1**	**1.09**		**5.30**
anencephalus & similar defects	1	2	1	1	-	-	2	1	-	-	8	7.5	1.07		0.19
other neural tube defects	11	8	6	5	5	6	8	5	4	3	61	40.8	1.49	+	1.47
hydrocephalus	2	6	5	-	2	2	2	2	4	2	27	25.5	1.06		0.65
other nervous system defects	8	19	16	10	15	14	12	12	11	6	123	126.9	0.97		2.96
Anomalies of Eye	**21**	**24**	**28**	**21**	**22**	**15**	**12**	**19**	**12**	**5**	**179**	**195.7**	**0.91**		**4.31**
Anomalies of Ear, Face, Neck	**21**	**18**	**23**	**24**	**19**	**13**	**11**	**13**	**13**	**6**	**161**	**201.9**	**0.80**	-	**3.88**
Anomalies of Heart	**55**	**65**	**71**	**70**	**90**	**106**	**44**	**59**	**68**	**51**	**679**	**631.3**	**1.08**		**16.35**
transposition of great vessels	5	2	3	4	3	11	3	3	3	2	39	31.7	1.23		0.94
tetralogy of Fallot	5	1	-	-	3	2	3	3	-	-	17	19.7	0.86		0.41
ventricular septal defect	7	16	15	15	18	19	12	13	15	13	143	159.7	0.90		3.44
hypoplastic left heart syndrome	1	1	3	1	1	-	-	-	5	1	13	12.5	1.04		0.31
other heart anomalies	37	45	50	50	65	74	26	40	45	35	467	407.7	1.15	+	11.24
Other Circulatory System Anomalies	**20**	**55**	**56**	**56**	**67**	**54**	**43**	**38**	**49**	**49**	**487**	**489.6**	**0.99**		**11.73**
patent ductus arteriosus	9	23	26	34	29	26	15	20	27	29	238	244.3	0.97		5.73
Anomalies of Respiratory System	**13**	**12**	**14**	**15**	**17**	**21**	**23**	**13**	**9**	**8**	**145**	**129.9**	**1.12**		**3.49**
Cleft Palate/Cleft Lip	**17**	**17**	**18**	**23**	**30**	**22**	**12**	**13**	**7**	**10**	**169**	**142.1**	**1.19**	+	**4.07**
Anomalies of Upper Alimentary Tract	**21**	**26**	**29**	**36**	**34**	**41**	**46**	**38**	**16**	**15**	**302**	**296.0**	**1.02**		**7.27**
tracheoesophageal fistula	1	-	1	-	2	1	1	-	-	1	7	13.6	0.51		0.17
pyloric stenosis	1	5	4	6	4	7	13	5	3	2	50	47.7	1.05		1.20
other anomalies of alimentary tract	19	21	24	30	28	33	32	33	13	12	245	234.7	1.04		5.90
Other Anomalies of Digestive System	**11**	**7**	**8**	**10**	**12**	**22**	**4**	**20**	**8**	**7**	**109**	**126.4**	**0.86**		**2.62**
Anomalies of Genital Organs	**51**	**70**	**61**	**53**	**68**	**55**	**54**	**74**	**49**	**13**	**548**	**555.7**	**0.99**		**13.19**
Anomalies of Urinary System	**35**	**29**	**21**	**19**	**26**	**38**	**41**	**36**	**19**	**16**	**280**	**271.0**	**1.03**		**6.74**
renal agenesis	5	5	-	1	3	7	5	2	-	2	30	26.5	1.13		0.72
cystic kidney disease	8	6	1	5	3	8	6	3	3	4	47	35.4	1.33		1.13
other urinary anomalies	22	18	20	13	20	23	30	31	16	10	203	209.1	0.97		4.89
Congenital Musculoskeletal Deformities	**68**	**116**	**111**	**112**	**129**	**137**	**110**	**162**	**99**	**54**	**1,098**	**1,145.8**	**0.96**		**26.44**
anomalies of spine	2	3	5	2	3	2	2	3	1	3	26	22.8	1.14		0.63
congenital dislocation of hip	13	20	11	15	18	15	17	27	23	9	168	375.4	0.45	-	4.04
varus, valgus, clubfoot	13	34	23	24	36	25	22	36	22	11	246	236.3	1.04		5.92
polydactyly, syndactyly	7	6	13	11	9	10	8	17	8	4	93	105.3	0.88		2.24
limb reductions	3	2	3	4	7	3	2	7	4	2	37	28.6	1.29		0.89
chondro/ osteo dystrophies	4	3	2	2	2	8	1	-	3	-	25	19.3	1.29		0.60
other musculoskeletal deformities	26	48	54	54	54	74	58	72	38	25	503	357.9	1.41	+	12.11
Anomalies of the Integument	**19**	**30**	**30**	**24**	**35**	**26**	**36**	**27**	**21**	**13**	**261**	**255.6**	**1.02**		**6.28**
hemangioma and lymphangioma	3	9	7	8	6	5	7	6	3	5	59	68.4	0.86		1.42
other anomalies of integument	16	21	23	16	29	21	29	21	18	8	202	187.2	1.08		4.86
Chromosomal Anomalies	**11**	**7**	**14**	**8**	**23**	**8**	**11**	**12**	**9**	**3**	**106**	**158.9**	**0.67**	-	**2.55**
Down's syndrome	6	4	7	1	9	4	6	5	5	1	48	73.5	0.65	-	1.16
Turner's syndrome	-	1	-	5	-	-	-	-	-	1	7	9.3	0.75		0.17
other chromosomal anomalies	5	2	7	2	14	4	5	7	4	1	51	76.1	0.67	-	1.23
Multiple & Multiple System Anomalies	**8**	**6**	**11**	**10**	**2**	**9**	**12**	**6**	**8**	**13**	**85**	**83.2**	**1.02**		**2.05**
Other and Unspecified Anomalies	**11**	**10**	**8**	**11**	**9**	**11**	**13**	**1**	**5**	**4**	**83**	**68.3**	**1.21**		**2.00**
Total Diagnoses	**404**	**527**	**532**	**508**	**605**	**600**	**496**	**551**	**411**	**278**	**4,912**	**4,952.5**	**0.99**		**118.27**
(Rate /1,000 total births)	**(87.2)**	**(110.3)**	**(117.3)**	**(110.6)**	**(137.8)**	**(146.6)**	**(129.6)**	**(149.5)**	**(116.7)**	**(80.0)**					
Total Cases	**235**	**354**	**342**	**365**	**347**	**342**	**313**	**330**	**252**	**148**	**3,028**	**3,125.4**	**0.97**		**72.91**
(Rate /1,000 total births)	**(50.7)**	**(74.1)**	**(75.4)**	**(79.5)**	**(79.0)**	**(83.5)**	**(81.8)**	**(89.5)**	**(71.6)**	**(42.6)**					
Total Births	**4,635**	**4,779**	**4,535**	**4,592**	**4,390**	**4,094**	**3,827**	**3,686**	**3,521**	**3,474**	**41,533**				

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected (p<0.05, two tailed) + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. Observed are counts of the specified congenital anomalies recorded in the HSR for births for the years shown. HSDA/HA assignment by usual address at time of birth. Diagnosis with unknown HSDA/HA are included in BC Total. An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Health Service Delivery Area Highlights

Tables 10 to 25 show reported congenital anomaly diagnoses by year of birth for 1993-2002 for each Health Service Delivery Areas (HSDA). These tables allow the reader to compare various congenital anomaly categories and subcategories within a geographic area. It should be noted, however, that the number of diagnoses and cases can be fairly small (as low as 21 diagnoses in 14 births in a year).

The next series of tables, 26 to 32, are designed to facilitate comparisons of reported congenital anomaly diagnoses across sub provincial areas. The categories shown here are also used in the following section for the tables and maps by local health area, and include:

- congenital anomaly cases
- congenital anomaly diagnoses
- congenital nervous system defects
- congenital heart defects
- cleft lip/cleft palate
- congenital musculoskeletal deformities
- chromosomal anomalies

Congenital Anomaly Cases and Diagnoses

HA 01 Interior had a statistically significant low ratio for congenital anomaly cases, and three of the four HSDAs in this HA (11 East Kootenay, 12 Kootenay Boundary, and 14 Thompson Cariboo Shuswap) had statistically significant low ratios of actual to expected cases. HSDA 13 Okanagan was not statistically significant for cases with congenital anomalies.

HA 02 Fraser had a statistically significant high ratio for congenital anomaly cases. The ratio of actual to expected cases with congenital anomalies was statistically significant and low in HSDA 21 Fraser East, statistically significant and high in HSDA 22 Fraser North, and not statistically significant in HSDA 23 Fraser South.

HA 03 Vancouver Coastal had a statistically significant high ratio for congenital anomaly cases. HSDA 32 Vancouver had a statistically significant high ratio of actual to expected cases with congenital anomalies, while the other HSDAs in this HA (31 Richmond and 33 North Shore/Coast Garibaldi) had statistically significant low ratios.

HA 04 Vancouver Island had a statistically significant low ratio for congenital anomaly cases. Two of the three HSDAs in this HA (41 South Vancouver Island and 43 North Vancouver Island) also had statistically significant low ratios of actual to expected cases with congenital anomalies, while HSDA 42 Central Vancouver Island had a statistically significant high ratio.

Although the ratio of actual to expected cases with congenital anomalies was not statistically significant for HA 05 Northern, HSDA 52 Northern Interior had a statistically significant high ratio, while 51 Northwest and 53 Northeast had statistically significant low ratios.

The pattern of statistical significance for congenital anomaly diagnoses at the HSDA level was nearly identical to that for congenital anomaly cases.

Congenital Nervous System Defects

The only HSDA with a statistically significant high ratio between observed and expected congenital nervous system defects was 51 Northwest (1.44) with 87 diagnoses and a rate of 6.98 per 1,000 total births.

The only HSDA with a statistically significant low ratio for congenital nervous system defects was 31 Richmond (0.64) with 51 diagnoses and a rate of 3.09 per 1,000 total births.

Congenital Heart Defects

The HSDAs with statistically significant high ratios between observed and expected congenital heart defects (with the number of diagnoses, followed by the rates) were:

52 Northern Interior	1.35	400	20.47
14 Thompson Cariboo Shuswap	1.22	407	18.59
32 Vancouver	1.10	995	16.71

The HSDAs with statistically significant low ratios for congenital heart defects (with the number of diagnoses, followed by the rates) were:

53 Northeast	0.60	87	9.12
11 East Kootenay	0.61	70	9.26
22 Fraser North	0.85	758	12.87
33 North Shore/Coast Garibaldi	0.89	353	13.47

Cleft Palate/Cleft Lip

The HSDAs with statistically significant high ratios between observed and expected cleft palate/cleft lip (with the number of diagnoses, followed by the rates) were:

52 Northern Interior	1.38	92	4.71
14 Thompson Cariboo Shuswap	1.24	93	4.25

The HSDAs with statistically significant low ratios for cleft palate/cleft lip (with the number of diagnoses, followed by the rates) were:

11 East Kootenay	0.46	12	1.59
33 North Shore/Coast Garibaldi	0.78	70	2.67

Congenital Musculoskeletal Deformities

The HSDAs with statistically significant high ratios between observed and congenital musculoskeletal deformities (with the number of diagnoses, followed by the rates) were:

22 Fraser North	1.26	2,053	34.87
32 Vancouver	1.20	1,979	33.24
52 Northern Interior	1.11	596	30.50
23 Fraser South	1.08	2,197	29.82

All the HSDAs that did not have statistically significant high ratios for congenital musculoskeletal deformities, had statistically significant low ratios, except for HSDA 31 Richmond. The lowest (with the number of diagnoses, followed by the rates) were:

12 Kootenay Boundary	0.62	123	17.03
41 South Vancouver Island	0.72	603	19.88
21 Fraser East	0.78	672	21.53

Chromosomal Anomalies

The HSDAs with statistically significant high ratios between observed and expected chromosomal anomalies (with the number of diagnoses, followed by the rates) were:

42 Central Vancouver Island	1.26	111	4.84
32 Vancouver	1.19	272	4.57

The HSDAs with statistically significant low ratios for chromosomal anomalies (with the number of diagnoses, followed by the rates) were:

53 Northeast	0.58	21	2.20
52 Northern Interior	0.68	51	2.61
51 Northwest	0.71	34	2.73

Table 10

Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth
British Columbia, 1993-2002

11 East Kootenay HSDA

Diagnosis	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	1993-2002 Obs	Exp	Ratio	(p)	Rate
Nervous System Defects	1	3	8	2	1	4	3	4	3	-	29	36.6	0.79		3.84
anencephalus & similar defects	-	-	-	-	-	-	-	-	-	-	-	1.4	-		-
other neural tube defects	-	-	1	-	1	2	-	-	2	-	6	7.4	0.81		0.79
hydrocephalus	-	-	2	-	-	-	-	1	-	-	3	4.6	0.65		0.40
other nervous system defects	1	3	5	2	-	2	3	3	1	-	20	23.1	0.87		2.65
Anomalies of Eye	3	5	4	1	11	10	3	5	1	2	45	35.6	1.26		5.95
Anomalies of Ear, Face, Neck	3	6	3	3	1	-	3	2	-	-	21	36.7	0.57	-	2.78
Anomalies of Heart	5	8	9	15	8	8	2	6	7	2	70	114.8	0.61	-	9.26
transposition of great vessels	-	-	-	-	-	-	-	-	-	-	-	5.8	-		-
tetralogy of Fallot	-	1	1	-	-	-	-	-	1	-	3	3.6	0.84		0.40
ventricular septal defect	2	-	2	3	2	-	-	1	-	1	11	29.1	0.38	-	1.45
hypoplastic left heart syndrome	-	1	1	-	-	-	-	-	1	-	3	2.3	1.32		0.40
other heart anomalies	3	6	5	12	6	8	2	5	5	1	53	74.2	0.71	-	7.01
Other Circulatory System Anomalies	2	2	3	6	4	11	5	1	3	2	39	89.1	0.44	-	5.16
patent ductus arteriosus	-	2	1	4	3	3	3	-	1	-	17	44.5	0.38	-	2.25
Anomalies of Respiratory System	2	2	3	1	1	-	1	2	1	2	15	23.7	0.63		1.98
Cleft Palate/Cleft Lip	-	1	1	3	1	4	-	-	1	1	12	25.9	0.46	-	1.59
Anomalies of Upper Alimentary Tract	4	7	6	4	9	6	4	4	3	-	47	53.9	0.87		6.22
tracheoesophageal fistula	-	1	-	-	-	-	-	-	-	-	1	2.5	0.40		0.13
pyloric stenosis	-	1	2	1	1	-	-	1	-	-	6	8.7	0.69		0.79
other anomalies of alimentary tract	4	5	4	3	8	6	4	3	3	-	40	42.7	0.94		5.29
Other Anomalies of Digestive System	-	-	3	-	1	-	1	1	-	2	8	23.0	0.35	-	1.06
Anomalies of Genital Organs	8	4	9	10	10	3	3	6	7	2	62	101.2	0.61	-	8.20
Anomalies of Urinary System	3	3	7	4	1	-	3	1	2	-	24	49.3	0.49	-	3.17
renal agenesis	1	-	-	-	-	-	-	-	-	-	1	4.8	0.21		0.13
cystic kidney disease	1	-	3	-	-	-	-	-	-	-	4	6.5	0.62		0.53
other urinary anomalies	1	3	4	4	1	-	3	1	2	-	19	38.1	0.50	-	2.51
Congenital Musculoskeletal Deformities	12	15	25	23	16	19	20	27	12	7	176	208.6	0.84	-	23.28
anomalies of spine	-	1	2	1	-	1	-	-	1	-	6	4.2	1.44		0.79
congenital dislocation of hip	3	3	6	3	7	3	4	6	7	1	43	68.3	0.63	-	5.69
varus, valgus, clubfoot	3	3	4	3	3	5	6	8	-	1	36	43.0	0.84		4.76
polydactyly, syndactyly	3	1	4	2	2	1	2	3	2	1	21	19.2	1.10		2.78
limb reductions	-	-	1	3	-	1	-	-	-	-	5	5.2	0.96		0.66
chondro/ osteo dystrophies	-	-	-	-	-	1	-	-	-	1	2	3.5	0.57		0.26
other musculoskeletal deformities	3	7	8	11	4	7	8	10	2	3	63	65.2	0.97		8.33
Anomalies of the Integument	-	2	1	3	6	-	8	2	2	-	24	48.5	0.52	-	3.17
hemangioma and lymphangioma	-	1	-	-	2	-	3	1	-	-	7	12.5	0.56		0.93
other anomalies of integument	-	1	1	3	4	-	5	1	2	-	17	34.1	0.50	-	2.25
Chromosomal Anomalies	1	4	1	6	3	4	1	1	1	1	23	28.9	0.79		3.04
Down's syndrome	1	4	-	3	3	2	1	1	1	1	17	13.4	1.27		2.25
Turner's syndrome	-	-	-	-	-	-	-	-	-	-	-	1.7	-		-
other chromosomal anomalies	-	-	1	3	-	2	-	-	-	-	6	13.9	0.43	-	0.79
Multiple & Multiple System Anomalies	-	3	3	4	-	-	1	-	-	-	11	15.1	0.73		1.45
Other and Unspecified Anomalies	2	-	-	1	-	-	1	1	-	-	5	12.4	0.40	-	0.66
Total Diagnoses	46	65	86	86	73	69	59	63	43	21	611	901.6	0.68	-	80.81
(Rate /1,000 total births)	(56.5)	(74.6)	(109.7)	(110.8)	(89.5)	(92.0)	(79.1)	(93.1)	(64.0)	(32.1)					
Total Cases	39	48	49	42	62	47	48	50	31	14	430	569.8	0.76	-	56.87
(Rate /1,000 total births)	(47.9)	(55.1)	(62.5)	(54.1)	(76.0)	(62.7)	(64.3)	(73.9)	(46.1)	(21.4)					
Total Births	814	871	784	776	816	750	746	677	672	655	7,561				

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. Observed are counts of the specified congenital anomalies recorded in the HSR for births for the years shown. HSDA/HA assignment by usual address at time of birth. Diagnosis with unknown HSDA/HA are included in BC Total. An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 11

Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth
British Columbia, 1993-2002

12 Kootenay Boundary HSDA

Diagnosis	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	1993-2002 Obs	Exp	Ratio	(p)	Rate
Nervous System Defects	4	6	5	-	5	5	1	3	-	3	32	35.0	0.92		4.43
anencephalus & similar defects	-	-	-	-	1	-	-	-	-	-	1	1.3	0.77		0.14
other neural tube defects	-	2	-	-	1	-	-	1	-	-	4	7.1	0.56		0.55
hydrocephalus	1	-	1	-	-	1	-	1	-	-	4	4.4	0.90		0.55
other nervous system defects	3	4	4	-	3	4	1	1	-	3	23	22.1	1.04		3.19
Anomalies of Eye	7	2	3	2	7	3	7	5	5	1	42	34.0	1.23		5.82
Anomalies of Ear, Face, Neck	4	4	5	1	2	1	2	2	-	-	21	35.1	0.60	-	2.91
Anomalies of Heart	5	14	29	8	13	18	5	-	2	5	99	109.8	0.90		13.71
transposition of great vessels	-	-	1	-	2	-	-	-	-	-	3	5.5	0.55		0.42
tetralogy of Fallot	-	-	2	-	-	-	1	-	-	-	3	3.4	0.88		0.42
ventricular septal defect	1	4	8	5	5	3	1	-	1	-	28	27.8	1.01		3.88
hypoplastic left heart syndrome	-	1	1	-	-	1	-	-	-	-	3	2.2	1.38		0.42
other heart anomalies	4	9	17	3	6	14	3	-	1	5	62	70.9	0.87		8.59
Other Circulatory System Anomalies	1	9	3	6	13	6	5	3	6	6	58	85.1	0.68	-	8.03
patent ductus arteriosus	-	2	1	3	6	4	2	3	1	4	26	42.5	0.61	-	3.60
Anomalies of Respiratory System	-	3	3	2	2	-	3	-	8	1	22	22.6	0.97		3.05
Cleft Palate/Cleft Lip	3	4	3	3	2	3	2	1	3	4	28	24.7	1.13		3.88
Anomalies of Upper Alimentary Tract	3	12	6	4	-	3	5	2	2	1	[illegible]	51.5	0.74		5.26
tracheoesophageal fistula	1	-	-	-	-	2	1	-	-	-	[illegible]	2.4	1.69		0.55
pyloric stenosis	-	3	1	1	-	1	-	-	-	-	6	8.3	0.72		0.83
other anomalies of alimentary tract	2	9	5	3	-	-	4	2	2	1	28	40.8	0.69	-	3.88
Other Anomalies of Digestive System	3	5	6	-	1	2	6	3	7	2	35	22.0	1.59	+	4.85
Anomalies of Genital Organs	8	8	5	9	7	9	12	25	16	2	101	96.6	1.05		13.99
Anomalies of Urinary System	1	4	9	1	2	7	2	5	1	1	33	47.1	0.70	-	4.57
renal agenesis	-	-	-	-	-	2	-	-	1	-	3	4.6	0.65		0.42
cystic kidney disease	-	1	1	-	1	-	-	2	-	-	5	6.2	0.81		0.69
other urinary anomalies	1	3	8	1	1	5	2	3	-	1	25	36.3	0.69		3.46
Congenital Musculoskeletal Deformities	12	23	10	11	6	11	12	19	13	6	123	199.2	0.62	-	17.03
anomalies of spine	-	-	-	-	-	-	-	-	2	-	2	4.0	0.50		0.28
congenital dislocation of hip	-	6	2	4	1	1	2	3	2	-	21	65.3	0.32	-	2.91
varus, valgus, clubfoot	7	5	1	5	2	4	4	6	2	4	40	41.1	0.97		5.54
polydactyly, syndactyly	-	1	-	-	-	-	1	1	1	-	4	18.3	0.22	(-)	0.55
limb reductions	-	1	1	-	-	1	-	1	-	-	4	5.0	0.80		0.55
chondro/ osteo dystrophies	-	-	-	-	-	-	1	-	-	-	1	3.4	0.30		0.14
other musculoskeletal deformities	5	10	6	2	3	5	4	8	6	2	51	62.2	0.82		7.06
Anomalies of the Integument	3	5	4	1	3	3	5	6	2	1	33	44.4	0.74		4.57
hemangioma and lymphangioma	2	2	2	1	1	1	2	1	-	-	12	11.9	1.01		1.66
other anomalies of integument	1	3	2	-	2	2	3	5	2	1	21	32.5	0.65	-	2.91
Chromosomal Anomalies	5	6	2	1	5	-	2	4	2	2	29	27.6	1.05		4.02
Down's syndrome	4	-	2	-	3	-	2	-	-	2	13	12.8	1.02		1.80
Turner's syndrome	-	-	-	-	-	-	-	-	-	-	-	1.6	-		-
other chromosomal anomalies	1	6	-	1	2	-	-	4	2	-	16	13.2	1.21		2.22
Multiple & Multiple System Anomalies	2	5	1	1	1	4	2	1	2	-	19	14.5	1.31		2.63
Other and Unspecified Anomalies	1	-	2	1	1	2	2	-	1	1	11	11.9	0.93		1.52
Total Diagnoses	82	110	96	51	70	77	73	79	70	36	724	861.1	0.84	-	100.26
(Rate /1,000 total births)	(73.4)	(134.3)	(119.0)	(67.5)	(99.6)	(108.0)	(106.4)	(121.9)	(107.5)	(60.7)					
Total Cases	38	58	43	38	43	37	49	47	42	21	414	543.4	0.76	-	57.33
(Rate /1,000 total births)	(42.6)	(70.8)	(53.3)	(50.3)	(61.2)	(51.9)	(71.4)	(72.5)	(64.5)	(35.4)					
Total Births	845	819	807	756	703	713	686	648	651	593	7,221				

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. Observed are counts of the specified congenital anomalies recorded in the HSR for births for the years shown. HSDA/HA assignment by usual address at time of birth. Diagnosis with unknown HSDA/HA are included in BC Total. An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 12

Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth
British Columbia, 1993-2002

13 Okanagan HSDA

Diagnosis	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	1993-2002 Obs	Exp	Ratio	(p)	Rate
Nervous System Defects	13	12	24	23	10	16	15	20	12	5	150	137.5	1.09		5.28
anencephalus & similar defects	-	1	-	-	1	-	1	-	2	-	5	5.1	0.98		0.18
other neural tube defects	5	-	5	1	1	4	2	-	2	2	22	27.9	0.79		0.77
hydrocephalus	1	3	4	9	1	-	4	3	1	-	26	17.4	1.49	+	0.92
other nervous system defects	7	8	15	13	6	12	8	17	7	3	96	86.8	1.11		3.38
Anomalies of Eye	20	26	25	10	9	13	19	12	8	1	143	133.8	1.07		5.03
Anomalies of Ear, Face, Neck	25	26	24	23	13	10	11	7	4	5	148	138.1	1.07		5.21
Anomalies of Heart	21	56	53	44	72	36	40	45	64	32	463	431.7	1.07		16.30
transposition of great vessels	1	1	2	-	3	-	-	2	3	5	17	21.6	0.79		0.60
tetralogy of Fallot	-	1	1	3	4	2	-	3	3	2	19	13.5	1.41		0.67
ventricular septal defect	5	13	16	16	17	9	12	9	20	8	125	109.2	1.14		4.40
hypoplastic left heart syndrome	1	-	1	-	1	1	-	-	2	-	6	8.6	0.70		0.21
other heart anomalies	14	41	33	25	47	24	28	31	36	17	296	278.8	1.06		10.42
Other Circulatory System Anomalies	23	36	30	35	37	42	38	36	42	19	338	334.8	1.01		11.90
patent ductus arteriosus	13	13	14	17	22	17	16	17	26	9	164	167.1	0.98		5.77
Anomalies of Respiratory System	3	14	16	10	6	9	7	20	2	4	91	88.9	1.02		3.20
Cleft Palate/Cleft Lip	13	7	5	16	10	9	11	30	5	3	109	97.2	1.12		3.84
Anomalies of Upper Alimentary Tract	19	23	36	27	13	21	18	28	32	12	229	202.4	1.13		8.06
tracheoesophageal fistula	1	1	2	1	3	-	1	-	1	2	12	9.3	1.29		0.42
pyloric stenosis	-	2	4	5	1	5	4	3	4	2	30	32.6	0.92		1.06
other anomalies of alimentary tract	18	20	30	21	9	16	13	25	27	8	187	160.5	1.17	+	6.58
Other Anomalies of Digestive System	12	5	11	9	13	12	4	7	10	4	87	86.5	1.01		3.06
Anomalies of Genital Organs	37	45	48	38	36	38	46	70	29	13	400	380.1	1.05		14.08
Anomalies of Urinary System	18	12	23	25	20	16	14	22	13	8	171	185.4	0.92		6.02
renal agenesis	2	2	4	3	1	2	2	-	2	1	19	18.1	1.05		0.67
cystic kidney disease	1	3	3	7	1	1	2	4	2	1	25	24.2	1.03		0.88
other urinary anomalies	15	7	16	15	18	13	10	18	9	6	127	143.0	0.89		4.47
Congenital Musculoskeletal Deformities	71	77	78	79	57	58	78	100	76	28	702	783.6	0.90	-	24.71
anomalies of spine	2	1	2	3	2	1	1	1	1	-	14	15.6	0.90		0.49
congenital dislocation of hip	17	14	17	15	16	14	17	22	16	1	149	256.7	0.58	-	5.25
varus, valgus, clubfoot	12	18	20	6	11	14	17	22	18	3	139	161.6	0.86		4.89
polydactyly, syndactyly	4	13	3	6	8	6	7	11	6	7	71	72.0	0.99		2.50
limb reductions	-	1	1	8	2	1	1	-	3	4	21	19.6	1.07		0.74
chondro/ osteo dystrophies	3	-	1	-	-	-	-	-	2	1	7	13.2	0.53		0.25
other musculoskeletal deformities	33	32	34	41	18	22	35	44	30	12	301	244.8	1.23	+	10.60
Anomalies of the Integument	11	26	19	24	19	15	26	39	23	9	211	174.8	1.21	+	7.43
hemangioma and lymphangioma	3	7	3	8	8	6	7	8	9	1	60	46.8	1.28		2.11
other anomalies of integument	8	19	16	16	11	9	19	31	14	8	151	128.0	1.18	+	5.32
Chromosomal Anomalies	5	14	8	16	15	11	9	13	11	4	106	108.7	0.98		3.73
Down's syndrome	5	9	5	5	8	5	6	6	6	2	57	50.3	1.13		2.01
Turner's syndrome	-	-	1	2	1	1	-	-	-	1	6	6.4	0.94		0.21
other chromosomal anomalies	-	5	2	9	6	5	3	7	5	1	43	52.0	0.83		1.51
Multiple & Multiple System Anomalies	2	5	3	4	4	4	5	12	3	3	45	56.9	0.79		1.58
Other and Unspecified Anomalies	7	9	8	5	4	6	3	8	3	1	54	48.7	1.16		1.90
Total Diagnoses	300	393	411	368	338	316	344	469	337	151	3,447	3,387.2	1.02		121.35
(Rate /1,000 total births)	(97.3)	(128.5)	(127.8)	(130.7)	(118.7)	(115.5)	(124.6)	(180.2)	(126.4)	(61.2)					
Total Cases	208	266	264	221	204	189	230	258	210	72	2,122	2,137.6	0.99		74.70
(Rate /1,000 total births)	(67.5)	(87.0)	(82.1)	(74.5)	(71.6)	(69.1)	(83.3)	(99.1)	(78.8)	(29.2)					
Total Births	3,083	3,059	3,215	2,968	2,848	2,736	2,761	2,603	2,666	2,467	28,406				

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected (p<0.05, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. Observed are counts of the specified congenital anomalies recorded in the HSR for births for the years shown. HSDA/HA assignment by usual address at time of birth. Diagnosis with unknown HSDA/HA are included in BC Total. An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 13

Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth
British Columbia, 1993-2002

14 Thompson Cariboo Shuswap HSDA

Diagnosis	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	1993-2002 Obs	Exp	Ratio	(p)	Rate
Nervous System Defects	**13**	**6**	**9**	**9**	**8**	**9**	**10**	**18**	**9**	**5**	**96**	**106.0**	**0.91**		**4.38**
anencephalus & similar defects	-	-	1	1	1	-	-	-	3	1	7	3.9	1.77		0.32
other neural tube defects	3	1	3	1	1	1	6	13	-	1	30	21.5	1.39		1.37
hydrocephalus	2	1	1	1	-	1	-	-	1	-	7	13.4	0.52		0.32
other nervous system defects	8	4	4	6	6	7	4	5	5	3	52	66.9	0.78		2.37
Anomalies of Eye	**10**	**8**	**14**	**15**	**12**	**6**	**8**	**5**	**2**	**-**	**78**	**103.2**	**0.76**	**-**	**3.56**
Anomalies of Ear, Face, Neck	**14**	**8**	**18**	**18**	**3**	**6**	**2**	**11**	**5**	**2**	**87**	**106.4**	**0.82**		**3.97**
Anomalies of Heart	**33**	**40**	**44**	**50**	**57**	**24**	**37**	**49**	**43**	**30**	**407**	**332.8**	**1.22**	**+**	**18.59**
transposition of great vessels	-	2	1	2	5	-	5	1	3	-	19	16.7	1.14		0.87
tetralogy of Fallot	-	-	2	-	2	-	1	3	1	-	9	10.4	0.87		0.41
ventricular septal defect	9	10	11	17	13	6	8	13	9	9	105	84.2	1.25	+	4.80
hypoplastic left heart syndrome	-	-	-	3	1	2	2	1	2	-	11	6.6	1.67		0.50
other heart anomalies	24	28	30	28	36	16	21	31	28	21	263	214.9	1.22	+	12.01
Other Circulatory System Anomalies	**16**	**32**	**39**	**46**	**33**	**22**	**34**	**47**	**35**	**16**	**320**	**258.1**	**1.24**	**+**	**14.61**
patent ductus arteriosus	8	17	16	31	19	13	21	26	21	12	184	128.8	1.43	+	8.40
Anomalies of Respiratory System	**7**	**9**	**6**	**8**	**9**	**7**	**3**	**13**	**5**	**7**	**74**	**68.5**	**1.08**		**3.38**
Cleft Palate/Cleft Lip	**11**	**9**	**8**	**10**	**11**	**1**	**7**	**11**	**16**	**9**	**93**	**74.9**	**1.24**	**+**	**4.25**
Anomalies of Upper Alimentary Tract	**17**	**19**	**15**	**5**	**11**	**9**	**10**	**17**	**7**	**8**	**118**	**156.0**	**0.76**	**-**	**5.39**
tracheoesophageal fistula	-	-	2	-	-	-	-	1	-	-	3	7.2	0.42		0.14
pyloric stenosis	1	3	-	3	5	3	4	4	-	3	26	25.1	1.03		1.19
other anomalies of alimentary tract	16	16	13	2	6	6	6	12	7	5	89	123.7	0.72	-	4.06
Other Anomalies of Digestive System	**6**	**3**	**8**	**9**	**15**	**3**	**12**	**15**	**7**	**1**	**79**	**66.7**	**1.19**		**3.61**
Anomalies of Genital Organs	**20**	**38**	**29**	**35**	**21**	**24**	**27**	**26**	**28**	**9**	**257**	**293.0**	**0.88**	**-**	**11.74**
Anomalies of Urinary System	**6**	**13**	**16**	**18**	**11**	**15**	**14**	**17**	**13**	**12**	**135**	**142.9**	**0.94**		**6.17**
renal agenesis	-	2	2	1	-	-	3	-	-	-	8	14.0	0.57		0.37
cystic kidney disease	-	2	2	3	1	2	-	1	1	1	13	18.7	0.70		0.59
other urinary anomalies	6	9	12	14	10	13	11	16	12	11	114	110.2	1.03		5.21
Congenital Musculoskeletal Deformities	**40**	**47**	**44**	**62**	**50**	**56**	**65**	**68**	**61**	**30**	**523**	**604.0**	**0.87**	**-**	**23.89**
anomalies of spine	1	1	1	-	4	2	-	3	1	1	14	12.0	1.16		0.64
congenital dislocation of hip	8	6	9	16	12	11	12	6	4	8	92	197.9	0.46	-	4.20
varus, valgus, clubfoot	5	8	9	11	17	8	26	20	22	6	132	124.6	1.06		6.03
polydactyly, syndactyly	3	4	6	3	3	7	8	8	10	6	58	55.5	1.04		2.65
limb reductions	1	5	3	2	1	3	-	3	1	-	19	15.1	1.26		0.87
chondro/ osteo dystrophies	2	1	-	1	-	1	-	2	-	-	7	10.2	0.69		0.32
other musculoskeletal deformities	20	22	16	29	13	24	19	26	23	9	201	188.7	1.07		9.18
Anomalies of the Integument	**3**	**10**	**21**	**16**	**9**	**9**	**14**	**28**	**16**	**17**	**143**	**134.7**	**1.06**		**6.53**
hemangioma and lymphangioma	2	1	6	5	5	3	5	8	5	4	44	36.1	1.22		2.01
other anomalies of integument	1	9	15	11	4	6	9	20	11	13	99	98.7	1.00		4.52
Chromosomal Anomalies	**3**	**7**	**11**	**8**	**7**	**5**	**8**	**8**	**7**	**7**	**71**	**83.8**	**0.85**		**3.24**
Down's syndrome	3	2	4	1	2	1	2	3	2	6	26	38.8	0.67	-	1.19
Turner's syndrome	-	1	1	-	1	-	2	1	-	-	6	4.9	1.23		0.27
other chromosomal anomalies	-	4	6	7	4	4	4	4	5	1	39	40.1	0.97		1.78
Multiple & Multiple System Anomalies	**1**	**5**	**5**	**6**	**7**	**1**	**2**	**8**	**2**	**1**	**38**	**43.9**	**0.87**		**1.74**
Other and Unspecified Anomalies	**6**	**6**	**2**	**5**	**6**	**3**	**5**	**7**	**2**	**-**	**42**	**36.0**	**1.17**		**1.92**
Total Diagnoses	**206**	**260**	**289**	**320**	**270**	**200**	**256**	**348**	**258**	**154**	**2,561**	**2,610.9**	**0.98**		**116.96**
(Rate /1,000 total births)	**(87.5)**	**(106.8)**	**(119.9)**	**(131.4)**	**(114.3)**	**(88.1)**	**(125.0)**	**(181.3)**	**(139.3)**	**(85.0)**					
Total Cases	**139**	**170**	**187**	**198**	**163**	**121**	**147**	**180**	**146**	**108**	**1,559**	**1,647.7**	**0.95**	**-**	**71.20**
(Rate /1,000 total births)	**(59.1)**	**(69.8)**	**(77.6)**	**(81.3)**	**(69.0)**	**(53.3)**	**(71.8)**	**(93.8)**	**(78.8)**	**(59.6)**					
Total Births	**2,353**	**2,435**	**2,411**	**2,436**	**2,362**	**2,269**	**2,048**	**1,919**	**1,852**	**1,811**	**21,896**				

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. Observed are counts of the specified congenital anomalies recorded in the HSR for births for the years shown. HSDA/HA assignment by usual address at time of birth. Diagnosis with unknown HSDA/HA are included in BC Total. An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 14

Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth
British Columbia, 1993-2002

21 Fraser East HSDA

Diagnosis	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	1993-2002 Obs	Exp	Ratio	(p)	Rate
Nervous System Defects	12	18	29	21	20	8	25	19	12	2	166	151.1	1.10		5.32
anencephalus & similar defects	2	1	3	1	-	-	1	1	-	-	9	5.6	1.60		0.29
other neural tube defects	4	8	7	4	6	-	12	1	5	-	47	30.7	1.53	+	1.51
hydrocephalus	-	2	4	4	2	-	5	5	-	1	23	19.2	1.20		0.74
other nervous system defects	6	7	15	12	12	8	7	12	7	1	87	95.4	0.91		2.79
Anomalies of Eye	21	22	27	15	13	17	14	7	12	4	152	147.1	1.03		4.87
Anomalies of Ear, Face, Neck	13	18	23	19	27	9	10	6	5	7	137	151.7	0.90		4.39
Anomalies of Heart	27	40	49	64	51	68	69	56	40	38	502	474.4	1.06		16.09
transposition of great vessels	1	3	1	2	3	8	12	7	2	3	42	23.8	1.77	+	1.35
tetralogy of Fallot	1	4	-	1	2	1	-	3	1	-	13	14.8	0.88		0.42
ventricular septal defect	9	11	11	15	15	16	11	14	7	4	113	120.0	0.94		3.62
hypoplastic left heart syndrome	-	1	-	-	-	2	-	2	-	3	8	9.4	0.85		0.26
other heart anomalies	16	21	37	46	31	41	46	30	30	28	326	306.4	1.06		10.45
Other Circulatory System Anomalies	19	40	41	51	35	47	35	31	45	31	375	367.9	1.02		12.02
patent ductus arteriosus	7	19	15	21	16	22	19	11	17	15	162	183.6	0.88		5.19
Anomalies of Respiratory System	12	8	9	13	8	5	16	8	5	6	90	97.6	0.92		2.88
Cleft Palate/Cleft Lip	14	8	7	7	22	13	17	3	7	3	101	106.7	0.95		3.24
Anomalies of Upper Alimentary Tract	22	28	34	30	29	29	14	31	29	11	257	222.4	1.16	+	8.23
tracheoesophageal fistula	-	1	1	-	1	-	-	1	-	-	4	10.3	0.39		0.13
pyloric stenosis	-	1	1	6	-	8	3	2	6	6	33	35.8	0.92		1.06
other anomalies of alimentary tract	22	26	32	24	28	21	11	28	23	5	220	176.3	1.25	+	7.05
Other Anomalies of Digestive System	5	6	13	14	12	8	6	11	9	8	92	95.0	0.97		2.95
Anomalies of Genital Organs	36	49	50	54	45	28	42	27	26	21	378	417.6	0.91		12.11
Anomalies of Urinary System	25	17	21	18	21	22	20	19	16	14	193	203.7	0.95		6.18
renal agenesis	2	2	1	4	3	-	1	6	1	3	23	19.9	1.15		0.74
cystic kidney disease	5	-	-	7	-	3	-	3	3	1	22	26.6	0.83		0.70
other urinary anomalies	18	15	20	7	18	19	19	10	12	10	148	157.1	0.94		4.74
Congenital Musculoskeletal Deformities	40	92	106	88	68	69	70	65	54	20	672	861.0	0.78	-	21.53
anomalies of spine	1	5	1	1	-	-	2	1	1	1	13	17.2	0.76		0.42
congenital dislocation of hip	7	33	35	26	16	25	21	25	17	5	210	282.1	0.74	-	6.73
varus, valgus, clubfoot	7	21	33	21	20	15	20	18	9	7	171	177.5	0.96		5.48
polydactyly, syndactyly	8	7	7	8	8	9	8	2	7	-	64	79.1	0.81		2.05
limb reductions	1	1	3	3	1	4	-	3	4	-	20	21.5	0.93		0.64
chondro/ osteo dystrophies	4	1	-	2	2	-	-	-	-	-	9	14.5	0.62		0.29
other musculoskeletal deformities	12	24	27	27	21	16	19	15	16	7	185	269.0	0.69	-	5.93
Anomalies of the Integument	8	19	22	20	13	12	13	9	7	11	134	192.1	0.70	-	4.29
hemangioma and lymphangioma	3	8	8	11	3	5	4	3	4	3	52	51.4	1.01		1.67
other anomalies of integument	5	11	14	9	10	7	9	6	3	8	82	140.6	0.58	-	2.63
Chromosomal Anomalies	10	8	14	22	18	9	13	12	16	13	135	119.4	1.13		4.33
Down's syndrome	6	5	4	12	7	3	6	6	5	8	62	55.3	1.12		1.99
Turner's syndrome	-	-	1	1	-	-	1	2	-	1	6	7.0	0.86		0.19
other chromosomal anomalies	4	3	9	9	11	6	6	4	11	4	67	57.2	1.17		2.15
Multiple & Multiple System Anomalies	6	10	9	4	12	4	6	10	6	4	71	62.5	1.14		2.27
Other and Unspecified Anomalies	3	5	8	5	3	4	4	5	3	2	42	51.3	0.82		1.35
Total Diagnoses	273	388	462	445	397	352	374	319	292	195	3,497	3,721.5	0.94	-	112.05
(Rate /1,000 total births)	(85.4)	(117.8)	(140.3)	(136.2)	(124.4)	(113.9)	(122.6)	(110.1)	(98.2)	(66.0)					
Total Cases	187	278	299	281	223	196	189	188	163	101	2,105	2,348.5	0.90	-	67.45
(Rate /1,000 total births)	(58.5)	(84.4)	(90.8)	(86.0)	(69.9)	(63.4)	(62.0)	(64.9)	(54.8)	(34.2)					
Total Births	3,195	3,294	3,293	3,268	3,192	3,091	3,050	2,897	2,974	2,955	31,209				

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. Observed are counts of the specified congenital anomalies recorded in the HSR for births for the years shown. HSDA/HA assignment by usual address at time of birth. Diagnosis with unknown HSDA/HA are included in BC Total. An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 15

Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth
British Columbia, 1993-2002

22 Fraser North HSDA

Diagnosis	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	1993-2002 Obs	Exp	Ratio	(p)	Rate
Nervous System Defects	**35**	**35**	**36**	**46**	**32**	**28**	**26**	**25**	**31**	**19**	**313**	**285.1**	**1.10**		**5.32**
anencephalus & similar defects	-	3	1	3	-	1	2	1	2	-	13	10.6	1.22		0.22
other neural tube defects	7	6	8	11	4	6	3	1	5	2	53	57.9	0.92		0.90
hydrocephalus	3	2	5	1	2	2	5	3	2	2	27	36.1	0.75		0.46
other nervous system defects	25	24	22	31	26	19	16	20	22	15	220	179.9	1.22	+	3.74
Anomalies of Eye	**53**	**34**	**36**	**28**	**21**	**26**	**15**	**18**	**12**	**14**	**257**	**277.4**	**0.93**		**4.37**
Anomalies of Ear, Face, Neck	**41**	**44**	**33**	**51**	**37**	**31**	**27**	**43**	**22**	**15**	**344**	**286.1**	**1.20**	+	**5.84**
Anomalies of Heart	**38**	**95**	**107**	**81**	**75**	**78**	**80**	**84**	**75**	**45**	**758**	**894.9**	**0.85**	-	**12.87**
transposition of great vessels	-	1	8	5	6	3	4	6	3	2	38	44.9	0.85		0.65
tetralogy of Fallot	-	3	1	3	3	4	5	3	1	1	24	27.9	0.86		0.41
ventricular septal defect	12	22	22	23	20	18	26	24	27	9	203	226.4	0.90		3.45
hypoplastic left heart syndrome	1	-	2	3	-	3	-	1	2	4	16	17.7	0.90		0.27
other heart anomalies	25	69	74	47	46	50	45	50	42	29	477	577.9	0.83	-	8.10
Other Circulatory System Anomalies	**39**	**64**	**104**	**80**	**76**	**80**	**84**	**69**	**79**	**50**	**725**	**694.0**	**1.04**		**12.31**
patent ductus arteriosus	12	28	44	41	50	39	35	43	40	30	362	346.3	1.05		6.15
Anomalies of Respiratory System	**12**	**8**	**20**	**22**	**30**	**17**	**24**	**19**	**12**	**13**	**177**	**184.2**	**0.96**		**3.01**
Cleft Palate/Cleft Lip	**18**	**15**	**14**	**27**	**38**	**31**	**21**	**16**	**17**	**6**	**203**	**201.4**	**1.01**		**3.45**
Anomalies of Upper Alimentary Tract	**37**	**44**	**44**	**54**	**67**	**44**	**59**	**57**	**47**	**31**	**484**	**419.5**	**1.15**	+	**8.22**
tracheoesophageal fistula	1	5	1	2	3	2	1	3	3	1	22	19.3	1.14		0.37
pyloric stenosis	3	7	12	11	9	6	10	6	6	10	80	67.6	1.18		1.36
other anomalies of alimentary tract	33	32	31	41	55	36	48	48	38	20	382	332.6	1.15	+	6.49
Other Anomalies of Digestive System	**20**	**26**	**20**	**16**	**26**	**15**	**8**	**17**	**18**	**7**	**173**	**179.2**	**0.97**		**2.94**
Anomalies of Genital Organs	**90**	**94**	**92**	**108**	**89**	**89**	**102**	**113**	**78**	**34**	**889**	**787.8**	**1.13**	+	**15.10**
Anomalies of Urinary System	**41**	**34**	**53**	**30**	**44**	**35**	**44**	**37**	**36**	**17**	**371**	**384.2**	**0.97**		**6.30**
renal agenesis	5	3	4	1	4	1	3	6	-	2	29	37.6	0.77		0.49
cystic kidney disease	7	4	5	5	5	-	6	9	4	1	46	50.2	0.92		0.78
other urinary anomalies	29	27	44	24	35	34	35	22	32	14	296	296.4	1.00		5.03
Congenital Musculoskeletal Deformities	**140**	**296**	**292**	**226**	**239**	**244**	**176**	**230**	**150**	**60**	**2,053**	**1,624.2**	**1.26**	+	**34.87**
anomalies of spine	4	8	2	4	2	4	3	1	6	1	35	32.4	1.08		0.59
congenital dislocation of hip	49	152	148	100	100	88	64	101	44	19	865	532.1	1.63	+	14.69
varus, valgus, clubfoot	31	48	52	46	40	42	34	38	36	9	376	334.9	1.12	+	6.39
polydactyly, syndactyly	16	18	6	18	19	16	18	28	21	13	173	149.3	1.16		2.94
limb reductions	3	9	7	-	3	4	2	11	1	1	41	40.6	1.01		0.70
chondro/ osteo dystrophies	3	-	4	7	1	6	1	4	3	1	30	27.4	1.09		0.51
other musculoskeletal deformities	34	61	73	51	73	84	54	47	39	16	532	507.4	1.05		9.04
Anomalies of the Integument	**29**	**71**	**37**	**43**	**43**	**32**	**49**	**51**	**48**	**25**	**428**	**362.3**	**1.18**	+	**7.27**
hemangioma and lymphangioma	8	16	14	9	7	13	12	6	10	7	102	97.0	1.05		1.73
other anomalies of integument	21	55	23	34	36	19	37	45	38	18	326	265.3	1.23	+	5.54
Chromosomal Anomalies	**10**	**30**	**21**	**12**	**29**	**22**	**20**	**20**	**27**	**20**	**211**	**225.3**	**0.94**		**3.58**
Down's syndrome	7	13	6	7	11	7	11	11	15	10	98	104.2	0.94		1.66
Turner's syndrome	-	2	2	-	1	1	1	1	4	1	13	13.2	0.99		0.22
other chromosomal anomalies	3	15	13	5	17	14	8	8	8	9	100	107.9	0.93		1.70
Multiple & Multiple System Anomalies	**9**	**17**	**13**	**4**	**10**	**8**	**8**	**12**	**14**	**3**	**98**	**118.0**	**0.83**		**1.66**
Other and Unspecified Anomalies	**6**	**11**	**15**	**6**	**8**	**11**	**7**	**8**	**4**	**1**	**77**	**96.9**	**0.79**	-	**1.31**
Total Diagnoses	**618**	**918**	**937**	**834**	**864**	**791**	**750**	**819**	**670**	**360**	**7,561**	**7,020.4**	**1.08**	+	**128.42**
(Rate /1,000 total births)	**(104.7)**	**(149.7)**	**(152.5)**	**(136.6)**	**(146.0)**	**(136.5)**	**(131.6)**	**(143.0)**	**(116.9)**	**(63.0)**					
Total Cases	**446**	**623**	**593**	**574**	**570**	**501**	**491**	**520**	**433**	**239**	**4,990**	**4,430.5**	**1.13**	+	**84.76**
(Rate /1,000 total births)	**(75.6)**	**(101.6)**	**(96.5)**	**(94.0)**	**(96.3)**	**(86.4)**	**(86.1)**	**(90.8)**	**(75.6)**	**(41.8)**					
Total Births	**5,902**	**6,134**	**6,145**	**6,107**	**5,917**	**5,796**	**5,700**	**5,728**	**5,731**	**5,715**	**58,875**				

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. Observed are counts of the specified congenital anomalies recorded in the HSR for births for the years shown. HSDA/HA assignment by usual address at time of birth. Diagnosis with unknown HSDA/HA are included in BC Total. An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 16

Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth
British Columbia, 1993-2002

23 Fraser South HSDA

Diagnosis	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	1993-2002 Obs	Exp	Ratio	(p)	Rate
Nervous System Defects	**33**	**30**	**43**	**40**	**47**	**37**	**42**	**30**	**35**	**21**	**358**	**356.7**	**1.00**		**4.86**
anencephalus & similar defects	1	2	6	-	-	2	2	3	1	2	19	13.3	1.43		0.26
other neural tube defects	9	2	5	16	8	6	17	11	7	1	82	72.5	1.13		1.11
hydrocephalus	5	9	6	2	3	6	6	3	3	4	47	45.2	1.04		0.64
other nervous system defects	18	17	26	21	36	23	17	13	24	14	209	225.1	0.93		2.84
Anomalies of Eye	**39**	**49**	**42**	**41**	**32**	**45**	**35**	**37**	**22**	**8**	**350**	**347.1**	**1.01**		**4.75**
Anomalies of Ear, Face, Neck	**54**	**55**	**44**	**37**	**33**	**29**	**41**	**37**	**24**	**14**	**368**	**358.1**	**1.03**		**4.99**
Anomalies of Heart	**76**	**58**	**125**	**153**	**125**	**156**	**91**	**138**	**88**	**61**	**1,071**	**1,119.8**	**0.96**		**14.54**
transposition of great vessels	2	2	6	15	7	12	9	13	2	-	68	56.1	1.21		0.92
tetralogy of Fallot	3	2	4	3	4	2	2	4	8	2	34	35.0	0.97		0.46
ventricular septal defect	18	14	30	35	29	35	16	23	15	16	231	283.3	0.82	-	3.14
hypoplastic left heart syndrome	2	2	5	4	1	4	3	-	-	2	23	22.2	1.04		0.31
other heart anomalies	51	38	80	96	84	103	61	98	63	41	715	723.2	0.99		9.70
Other Circulatory System Anomalies	**51**	**53**	**86**	**97**	**93**	**91**	**73**	**73**	**77**	**66**	**760**	**868.5**	**0.88**	-	**10.32**
patent ductus arteriosus	22	25	42	37	41	46	41	41	47	42	384	433.4	0.89	-	5.21
Anomalies of Respiratory System	**18**	**28**	**29**	**27**	**28**	**28**	**22**	**40**	**30**	**11**	**261**	**230.5**	**1.13**	+	**3.54**
Cleft Palate/Cleft Lip	**25**	**31**	**22**	**27**	**16**	**25**	**30**	**43**	**21**	**11**	**251**	**252.0**	**1.00**		**3.41**
Anomalies of Upper Alimentary Tract	**49**	**64**	**81**	**62**	**71**	**57**	**81**	**84**	**51**	**42**	**642**	**525.0**	**1.22**	+	**8.71**
tracheoesophageal fistula	2	2	8	1	2	5	1	1	1	1	24	24.2	0.99		0.33
pyloric stenosis	9	6	17	10	8	7	8	15	6	12	98	84.6	1.16		1.33
other anomalies of alimentary tract	38	56	56	51	61	45	72	68	44	29	520	416.2	1.25	+	7.06
Other Anomalies of Digestive System	**14**	**15**	**32**	**29**	**24**	**42**	**28**	**32**	**24**	**14**	**254**	**224.3**	**1.13**	+	**3.45**
Anomalies of Genital Organs	**62**	**117**	**137**	**136**	**106**	**108**	**88**	**117**	**71**	**40**	**982**	**985.8**	**1.00**		**13.33**
Anomalies of Urinary System	**42**	**48**	**69**	**53**	**52**	**55**	**53**	**45**	**45**	**36**	**498**	**480.8**	**1.04**		**6.76**
renal agenesis	3	3	5	8	2	10	7	6	4	2	50	47.1	1.06		0.68
cystic kidney disease	6	5	12	6	13	8	7	8	4	2	71	62.9	1.13		0.96
other urinary anomalies	33	40	52	39	37	37	39	31	37	32	377	370.9	1.02		5.12
Congenital Musculoskeletal Deformities	**169**	**204**	**266**	**266**	**247**	**236**	**256**	**257**	**194**	**102**	**2,197**	**2,032.5**	**1.08**	+	**29.82**
anomalies of spine	4	2	2	5	5	8	1	6	2	-	35	40.5	0.86		0.48
congenital dislocation of hip	58	88	108	103	80	78	103	126	77	26	847	665.9	1.27	+	11.50
varus, valgus, clubfoot	32	34	46	53	37	48	48	43	42	22	405	419.1	0.97		5.50
polydactyly, syndactyly	15	10	24	22	25	22	20	34	16	19	207	186.8	1.11		2.81
limb reductions	7	1	4	14	7	7	9	5	8	2	64	50.8	1.26		0.87
chondro/ osteo dystrophies	1	2	4	2	8	11	5	1	2	1	37	34.3	1.08		0.50
other musculoskeletal deformities	52	67	78	67	85	62	70	42	47	32	602	635.0	0.95		8.17
Anomalies of the Integument	**28**	**49**	**44**	**24**	**37**	**20**	**49**	**46**	**52**	**34**	**383**	**453.4**	**0.84**	-	**5.20**
hemangioma and lymphangioma	7	8	11	8	13	5	14	8	11	4	89	121.4	0.73	-	1.21
other anomalies of integument	21	41	33	16	24	15	35	38	41	30	294	332.0	0.89	-	3.99
Chromosomal Anomalies	**16**	**18**	**33**	**32**	**29**	**42**	**23**	**34**	**21**	**20**	**268**	**281.9**	**0.95**		**3.64**
Down's syndrome	12	7	16	12	14	21	8	13	11	13	127	130.5	0.97		1.72
Turner's syndrome	2	-	-	2	2	4	2	4	-	-	16	16.5	0.97		0.22
other chromosomal anomalies	2	11	17	18	13	17	13	17	10	7	125	135.0	0.93		1.70
Multiple & Multiple System Anomalies	**11**	**15**	**16**	**14**	**20**	**13**	**15**	**12**	**18**	**9**	**143**	**147.6**	**0.97**		**1.94**
Other and Unspecified Anomalies	**12**	**11**	**18**	**15**	**20**	**13**	**10**	**10**	**13**	**1**	**123**	**121.2**	**1.01**		**1.67**
Total Diagnoses	**699**	**845**	**1,087**	**1,053**	**980**	**997**	**937**	**1,035**	**786**	**490**	**8,909**	**8,785.1**	**1.01**		**120.92**
(Rate /1,000 total births)	**(94.4)**	**(111.3)**	**(140.9)**	**(140.5)**	**(130.8)**	**(130.7)**	**(130.2)**	**(149.2)**	**(111.6)**	**(68.3)**					
Total Cases	**477**	**599**	**725**	**649**	**586**	**540**	**606**	**609**	**509**	**321**	**5,621**	**5,544.1**	**1.01**		**76.30**
(Rate /1,000 total births)	**(64.4)**	**(78.9)**	**(94.0)**	**(86.6)**	**(78.2)**	**(70.8)**	**(84.2)**	**(87.8)**	**(72.3)**	**(44.8)**					
Total Births	**7,406**	**7,592**	**7,716**	**7,493**	**7,490**	**7,630**	**7,198**	**6,936**	**7,043**	**7,170**	**73,674**				

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. Observed are counts of the specified congenital anomalies recorded in the HSR for births for the years shown. HSDA/HA assignment by usual address at time of birth. Diagnosis with unknown HSDA/HA are included in BC Total. An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 17

Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth British Columbia, 1993-2002

31 Richmond HSDA

Diagnosis	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	1993-2002 Obs	Exp	Ratio	(p)	Rate
Nervous System Defects	3	1	8	2	10	6	1	9	6	5	51	79.8	0.64	-	3.09
anencephalus & similar defects	-	-	-	-	-	-	-	-	-	-	-	3.0	-		-
other neural tube defects	-	-	1	-	7	-	-	-	1	-	9	16.2	0.56		0.55
hydrocephalus	-	1	1	2	-	-	1	2	-	-	7	10.1	0.69		0.42
other nervous system defects	3	-	6	-	3	6	-	7	5	5	35	50.4	0.69	-	2.12
Anomalies of Eye	10	12	13	10	8	4	17	3	9	1	87	77.7	1.12		5.28
Anomalies of Ear, Face, Neck	9	9	6	10	6	13	5	7	7	5	77	80.1	0.96		4.67
Anomalies of Heart	14	35	16	25	18	41	20	45	15	16	245	250.6	0.98		14.86
transposition of great vessels	-	4	-	-	3	3	2	6	-	2	20	12.6	1.59	+	1.21
tetralogy of Fallot	-	-	-	-	-	-	-	2	-	2	4	7.8	0.51		0.24
ventricular septal defect	4	6	6	6	7	9	5	10	7	6	66	63.4	1.04		4.00
hypoplastic left heart syndrome	-	1	-	-	1	2	1	-	2	-	7	5.0	1.41		0.42
other heart anomalies	10	24	10	19	7	27	12	27	6	6	148	161.8	0.91		8.98
Other Circulatory System Anomalies	10	18	15	14	17	20	20	30	11	18	173	194.3	0.89		10.49
patent ductus arteriosus	3	9	6	6	8	10	12	16	10	12	92	97.0	0.95		5.58
Anomalies of Respiratory System	-	2	5	4	1	4	4	6	2	2	30	51.6	0.58	-	1.82
Cleft Palate/Cleft Lip	5	6	5	6	2	8	3	4	4	-	43	56.4	0.76		2.61
Anomalies of Upper Alimentary Tract	9	8	13	8	6	7	6	8	2	3	70	117.5	0.60	-	4.25
tracheoesophageal fistula	-	1	-	-	1	-	-	1	1	-	4	5.4	0.74		0.24
pyloric stenosis	1	1	3	2	-	1	1	2	-	2	13	18.9	0.69		0.79
other anomalies of alimentary tract	8	6	10	6	5	6	5	5	1	1	53	93.1	0.57	-	3.22
Other Anomalies of Digestive System	5	2	9	2	3	-	6	5	-	7	39	50.2	0.78		2.37
Anomalies of Genital Organs	5	12	25	22	19	13	25	28	13	4	166	220.6	0.75	-	10.07
Anomalies of Urinary System	23	6	17	12	14	10	7	9	12	11	121	107.6	1.12		7.34
renal agenesis	2	1	3	3	-	1	-	2	-	2	14	10.5	1.33		0.85
cystic kidney disease	1	1	5	1	2	1	1	1	4	1	18	14.1	1.28		1.09
other urinary anomalies	20	4	9	8	12	8	6	6	8	8	89	83.0	1.07		5.40
Congenital Musculoskeletal Deformities	34	57	48	49	41	51	51	56	43	15	445	454.8	0.98		26.99
anomalies of spine	-	1	-	1	-	1	-	2	3	-	8	9.1	0.88		0.49
congenital dislocation of hip	16	23	21	17	17	28	31	29	14	6	202	149.0	1.36	+	12.25
varus, valgus, clubfoot	4	9	13	17	14	6	2	4	9	1	79	93.8	0.84		4.79
polydactyly, syndactyly	5	3	2	3	1	3	3	2	7	-	29	41.8	0.69	-	1.76
limb reductions	1	1	3	1	-	-	-	1	-	1	8	11.4	0.70		0.49
chondro/ osteo dystrophies	-	-	-	1	-	-	1	1	-	-	3	7.7	0.39		0.18
other musculoskeletal deformities	8	20	9	9	9	13	14	17	10	7	116	142.1	0.82	-	7.04
Anomalies of the Integument	4	21	12	9	8	4	12	10	9	3	92	101.4	0.91		5.58
hemangioma and lymphangioma	1	1	2	5	4	-	4	2	4	-	23	27.2	0.85		1.40
other anomalies of integument	3	20	10	4	4	4	8	8	5	3	69	74.3	0.93		4.19
Chromosomal Anomalies	8	8	2	10	5	7	6	8	6	5	65	63.1	1.03		3.94
Down's syndrome	8	4	1	5	4	2	-	6	2	3	35	29.2	1.20		2.12
Turner's syndrome	-	1	-	-	-	-	-	-	-	-	1	3.7	0.27		0.06
other chromosomal anomalies	-	3	1	5	1	5	6	2	4	2	29	30.2	0.96		1.76
Multiple & Multiple System Anomalies	4	4	5	5	1	1	5	1	4	1	31	33.0	0.94		1.88
Other and Unspecified Anomalies	3	2	1	2	3	8	-	-	1	-	20	27.1	0.74		1.21
Total Diagnoses	146	203	200	190	162	197	188	229	144	96	1,755	1,965.7	0.89	-	106.46
(Rate /1,000 total births)	(85.9)	(123.4)	(111.9)	(111.8)	(97.8)	(119.2)	(122.5)	(144.1)	(88.6)	(60.2)					
Total Cases	108	131	136	123	112	114	125	132	97	48	1,126	1,240.5	0.91	-	68.30
(Rate /1,000 total births)	(63.6)	(79.6)	(76.1)	(72.4)	(67.6)	(69.0)	(81.4)	(83.1)	(59.7)	(30.1)					
Total Births	1,699	1,645	1,787	1,700	1,657	1,653	1,535	1,589	1,625	1,595	16,485				

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. Observed are counts of the specified congenital anomalies recorded in the HSR for births for the years shown. HSDA/HA assignment by usual address at time of birth. Diagnosis with unknown HSDA/HA are included in BC Total. An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 18

Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth British Columbia, 1993-2002

32 Vancouver HSDA

Diagnosis	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	1993-2002 Obs	Exp	Ratio	(p)	Rate
Nervous System Defects	**26**	**37**	**38**	**25**	**21**	**17**	**27**	**17**	**34**	**34**	**276**	**288.3**	**0.96**		**4.64**
anencephalus & similar defects	-	-	-	-	1	-	2	-	-	3	6	10.7	0.56		0.10
other neural tube defects	5	9	3	1	1	1	6	-	7	10	43	58.6	0.73	-	0.72
hydrocephalus	4	5	3	3	6	1	5	4	5	3	39	36.5	1.07		0.66
other nervous system defects	17	23	32	21	13	15	14	13	22	18	188	181.9	1.03		3.16
Anomalies of Eye	**36**	**44**	**34**	**31**	**27**	**30**	**29**	**22**	**11**	**18**	**282**	**280.5**	**1.01**		**4.74**
Anomalies of Ear, Face, Neck	**23**	**54**	**38**	**36**	**38**	**32**	**29**	**33**	**31**	**33**	**347**	**289.4**	**1.20**	+	**5.83**
Anomalies of Heart	**81**	**109**	**143**	**126**	**109**	**88**	**76**	**78**	**74**	**111**	**995**	**904.9**	**1.10**	+	**16.71**
transposition of great vessels	1	3	8	2	5	2	2	3	1	6	33	45.4	0.73		0.55
tetralogy of Fallot	3	2	4	2	2	7	2	3	1	4	30	28.3	1.06		0.50
ventricular septal defect	28	35	39	43	32	31	31	31	28	23	321	228.9	1.40	+	5.39
hypoplastic left heart syndrome	2	1	2	1	5	1	2	-	3	4	21	17.9	1.17		0.35
other heart anomalies	47	68	90	78	65	47	39	41	41	74	590	584.4	1.01		9.91
Other Circulatory System Anomalies	**37**	**88**	**103**	**119**	**103**	**90**	**83**	**80**	**70**	**93**	**866**	**701.8**	**1.23**	+	**14.55**
patent ductus arteriosus	11	42	47	56	55	41	49	46	37	48	432	350.2	1.23	+	7.26
Anomalies of Respiratory System	**18**	**24**	**17**	**16**	**22**	**22**	**26**	**17**	**19**	**22**	**203**	**186.3**	**1.09**		**3.41**
Cleft Palate/Cleft Lip	**9**	**34**	**13**	**21**	**26**	**24**	**22**	**16**	**9**	**24**	**198**	**203.6**	**0.97**		**3.33**
Anomalies of Upper Alimentary Tract	**33**	**35**	**34**	**36**	**28**	**36**	**25**	**27**	**34**	**9**	**297**	**424.3**	**0.70**	-	**4.99**
tracheoesophageal fistula	1	3	1	4	3	6	4	5	2	1	30	19.6	1.53	+	0.50
pyloric stenosis	8	7	4	3	5	3	2	4	6	3	45	68.3	0.66	-	0.76
other anomalies of alimentary tract	24	25	29	29	20	27	19	18	26	5	222	336.4	0.66	-	3.73
Other Anomalies of Digestive System	**16**	**28**	**8**	**22**	**15**	**19**	**28**	**31**	**22**	**17**	**206**	**181.2**	**1.14**		**3.46**
Anomalies of Genital Organs	**102**	**82**	**91**	**121**	**93**	**79**	**103**	**99**	**91**	**40**	**901**	**796.6**	**1.13**	+	**15.13**
Anomalies of Urinary System	**48**	**43**	**34**	**48**	**37**	**64**	**37**	**51**	**36**	**52**	**450**	**388.5**	**1.16**	+	**7.56**
renal agenesis	3	11	2	5	4	2	4	7	4	9	51	38.0	1.34	+	0.86
cystic kidney disease	6	4	5	6	3	14	1	11	4	7	61	50.8	1.20		1.02
other urinary anomalies	39	28	27	37	30	48	32	33	28	36	338	299.7	1.13	+	5.68
Congenital Musculoskeletal Deformities	**184**	**185**	**228**	**198**	**213**	**190**	**234**	**234**	**164**	**149**	**1,979**	**1,642.4**	**1.20**	+	**33.24**
anomalies of spine	7	-	2	2	1	2	6	6	2	5	33	32.7	1.01		0.55
congenital dislocation of hip	82	75	99	93	99	100	110	124	65	47	894	538.1	1.66	+	15.02
varus, valgus, clubfoot	32	35	46	32	44	26	37	52	30	13	347	338.7	1.02		5.83
polydactyly, syndactyly	23	18	19	17	11	12	19	15	15	14	163	150.9	1.08		2.74
limb reductions	1	3	6	3	6	3	2	7	4	4	39	41.0	0.95		0.66
chondro/ osteo dystrophies	6	-	3	2	4	1	2	3	2	3	26	27.7	0.94		0.44
other musculoskeletal deformities	33	54	53	49	48	46	58	27	46	63	477	513.1	0.93		8.01
Anomalies of the Integument	**30**	**46**	**43**	**61**	**42**	**25**	**56**	**58**	**73**	**36**	**470**	**366.4**	**1.28**	+	**7.89**
hemangioma and lymphangioma	8	11	10	17	15	9	19	24	13	6	132	98.1	1.35	+	2.22
other anomalies of integument	22	35	33	44	27	16	37	34	60	30	338	268.3	1.26	+	5.68
Chromosomal Anomalies	**23**	**25**	**33**	**27**	**26**	**19**	**22**	**30**	**18**	**49**	**272**	**227.8**	**1.19**	+	**4.57**
Down's syndrome	9	14	14	12	15	8	6	8	9	19	114	105.4	1.08		1.91
Turner's syndrome	2	-	3	1	3	-	2	3	1	4	19	13.3	1.43		0.32
other chromosomal anomalies	12	11	16	14	8	11	14	19	8	26	139	109.1	1.27	+	2.33
Multiple & Multiple System Anomalies	**15**	**19**	**16**	**12**	**12**	**18**	**17**	**16**	**15**	**16**	**156**	**119.3**	**1.31**	+	**2.62**
Other and Unspecified Anomalies	**17**	**12**	**11**	**9**	**6**	**15**	**11**	**14**	**4**	**9**	**108**	**97.9**	**1.10**		**1.81**
Total Diagnoses	**698**	**865**	**884**	**908**	**818**	**768**	**825**	**823**	**705**	**712**	**8,006**	**7,099.3**	**1.13**	+	**134.47**
(Rate /1,000 total births)	**(114.6)**	**(138.8)**	**(138.2)**	**(144.3)**	**(135.9)**	**(138.3)**	**(143.3)**	**(141.5)**	**(124.5)**	**(124.4)**					
Total Cases	**485**	**556**	**560**	**602**	**538**	**486**	**563**	**531**	**488**	**398**	**5,207**	**4,480.2**	**1.16**	+	**87.46**
(Rate /1,000 total births)	**(79.6)**	**(89.2)**	**(87.6)**	**(95.7)**	**(89.4)**	**(87.5)**	**(97.8)**	**(91.3)**	**(86.2)**	**(69.6)**					
Total Births	**6,090**	**6,230**	**6,396**	**6,293**	**6,019**	**5,552**	**5,758**	**5,815**	**5,661**	**5,722**	**59,536**				

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. Observed are counts of the specified congenital anomalies recorded in the HSR for births for the years shown. HSDA/HA assignment by usual address at time of birth. Diagnosis with unknown HSDA/HA are included in BC Total. An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 19

Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth British Columbia, 1993-2002

33 North Shore/Coast Garibaldi HSDA

Diagnosis	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	1993-2002 Obs	Exp	Ratio	(p)	Rate
Nervous System Defects	15	18	20	15	8	16	7	3	8	3	113	126.8	0.89		4.31
anencephalus & similar defects	-	1	1	-	-	1	-	-	-	-	3	4.7	0.64		0.11
other neural tube defects	-	5	2	1	-	5	3	-	-	-	16	25.8	0.62		0.61
hydrocephalus	4	2	3	2	-	3	2	1	2	1	20	16.1	1.24		0.76
other nervous system defects	11	10	14	12	8	7	2	2	6	2	74	80.0	0.92		2.82
Anomalies of Eye	12	11	17	20	5	9	16	10	9	-	109	123.4	0.88		4.16
Anomalies of Ear, Face, Neck	10	21	11	15	8	16	11	16	13	2	123	127.3	0.97		4.70
Anomalies of Heart	39	39	37	42	24	49	36	37	28	22	353	398.2	0.89	-	13.47
transposition of great vessels	3	3	2	-	-	3	-	-	-	-	11	20.0	0.55	-	0.42
tetralogy of Fallot	-	1	-	2	-	2	3	1	-	1	10	12.4	0.80		0.38
ventricular septal defect	13	11	9	12	8	10	5	5	9	2	84	100.7	0.83		3.21
hypoplastic left heart syndrome	1	-	-	1	-	1	-	1	-	-	4	7.9	0.51		0.15
other heart anomalies	22	24	26	27	16	33	28	30	19	19	244	257.2	0.95		9.31
Other Circulatory System Anomalies	19	22	33	44	19	45	30	18	34	12	276	308.8	0.89		10.54
patent ductus arteriosus	10	10	14	19	11	15	15	10	15	6	125	154.1	0.81	-	4.77
Anomalies of Respiratory System	8	6	7	8	11	5	8	10	10	1	74	82.0	0.90		2.82
Cleft Palate/Cleft Lip	10	6	9	5	8	3	6	9	4	10	70	89.6	0.78	-	2.67
Anomalies of Upper Alimentary Tract	9	10	7	22	10	8	17	10	11	6	110	186.7	0.59	-	4.20
tracheoesophageal fistula	-	1	-	3	1	-	-	-	-	-	5	8.6	0.58		0.19
pyloric stenosis	2	-	2	2	2	1	2	-	1	1	13	30.1	0.43	-	0.50
other anomalies of alimentary tract	7	9	5	17	7	7	15	10	10	5	92	148.0	0.62	-	3.51
Other Anomalies of Digestive System	1	7	17	4	7	9	8	4	10	6	73	79.7	0.92		2.79
Anomalies of Genital Organs	33	40	33	44	45	34	38	52	34	9	362	350.5	1.03		13.82
Anomalies of Urinary System	17	21	17	14	13	21	11	25	29	8	176	171.0	1.03		6.72
renal agenesis	-	-	-	2	2	-	3	2	2	-	11	16.7	0.66		0.42
cystic kidney disease	3	4	2	1	2	3	1	4	5	-	25	22.4	1.12		0.95
other urinary anomalies	14	17	15	11	9	18	7	19	22	8	140	131.9	1.06		5.34
Congenital Musculoskeletal Deformities	40	73	56	62	87	44	108	84	70	32	656	722.7	0.91	-	25.04
anomalies of spine	-	2	-	1	-	2	1	3	-	1	10	14.4	0.69		0.38
congenital dislocation of hip	9	26	16	29	16	20	26	33	21	11	207	236.8	0.87		7.90
varus, valgus, clubfoot	13	7	10	9	33	9	27	16	19	5	148	149.0	0.99		5.65
polydactyly, syndactyly	1	8	5	7	10	2	13	6	8	5	65	66.4	0.98		2.48
limb reductions	1	1	1	-	1	-	3	2	-	-	9	18.1	0.50	-	0.34
chondro/ osteo dystrophies	4	2	1	2	1	1	1	-	-	-	12	12.2	0.98		0.46
other musculoskeletal deformities	12	27	23	14	26	10	37	24	22	10	205	225.8	0.91		7.83
Anomalies of the Integument	14	19	15	18	19	6	35	15	31	8	180	161.2	1.12		6.87
hemangioma and lymphangioma	5	8	3	7	4	-	9	4	4	2	46	43.2	1.07		1.76
other anomalies of integument	9	11	12	11	15	6	26	11	27	6	134	118.1	1.14		5.12
Chromosomal Anomalies	9	10	14	5	8	21	6	12	14	5	104	100.2	1.04		3.97
Down's syndrome	4	1	5	5	2	10	2	7	6	4	46	46.4	0.99		1.76
Turner's syndrome	1	1	1	-	1	2	-	-	1	-	7	5.9	1.19		0.27
other chromosomal anomalies	4	8	8	-	5	9	4	5	7	1	51	48.0	1.06		1.95
Multiple & Multiple System Anomalies	4	-	3	3	2	12	3	8	5	-	40	52.5	0.76		1.53
Other and Unspecified Anomalies	4	5	4	8	3	1	3	1	4	-	33	43.1	0.77		1.26
Total Diagnoses	244	308	300	329	277	299	343	314	314	124	2,852	3,123.8	0.91	-	108.87
(Rate /1,000 total births)	(86.0)	(107.9)	(109.5)	(117.8)	(104.7)	(117.7)	(134.1)	(124.6)	(134.3)	(52.3)					
Total Cases	165	201	201	217	179	167	210	196	183	80	1,799	1,971.4	0.91	-	68.67
(Rate /1,000 total births)	(58.2)	(70.4)	(73.4)	(77.7)	(67.6)	(65.7)	(82.1)	(77.7)	(78.3)	(33.8)					
Total Births	2,836	2,855	2,739	2,794	2,646	2,540	2,558	2,521	2,338	2,370	26,197				

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. Observed are counts of the specified congenital anomalies recorded in the HSR for births for the years shown. HSDA/HA assignment by usual address at time of birth. Diagnosis with unknown HSDA/HA are included in BC Total. An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 20

Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth
British Columbia, 1993-2002

41 South Vancouver Island HSDA

Diagnosis	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	1993-2002 Obs	Exp	Ratio	(p)	Rate
Nervous System Defects	12	14	27	19	13	13	14	14	8	4	138	146.9	0.94		4.55
anencephalus & similar defects	2	-	-	-	1	-	-	-	2	1	6	5.5	1.10		0.20
other neural tube defects	5	3	5	1	2	1	2	2	1	-	22	29.8	0.74		0.73
hydrocephalus	-	1	3	4	1	3	3	-	-	-	15	18.6	0.81		0.49
other nervous system defects	5	10	19	14	9	9	10	12	5	3	96	92.7	1.04		3.16
Anomalies of Eye	10	15	23	27	14	12	17	13	14	2	147	143.0	1.03		4.85
Anomalies of Ear, Face, Neck	16	21	21	20	12	8	10	4	3	5	120	147.5	0.81	-	3.96
Anomalies of Heart	33	34	62	58	46	59	23	61	30	58	464	461.1	1.01		15.29
transposition of great vessels	1	1	4	3	4	3	-	4	4	2	26	23.1	1.12		0.86
tetralogy of Fallot	1	1	4	4	1	1	3	-	1	5	21	14.4	1.46		0.69
ventricular septal defect	9	12	13	20	9	14	5	14	9	15	120	116.6	1.03		3.96
hypoplastic left heart syndrome	-	1	1	2	-	-	1	3	-	2	10	9.1	1.09		0.33
other heart anomalies	22	19	40	29	32	41	14	40	16	34	287	297.8	0.96		9.46
Other Circulatory System Anomalies	18	32	26	26	21	48	20	33	33	31	288	357.6	0.81	-	9.49
patent ductus arteriosus	7	17	16	16	9	26	6	17	22	18	154	178.5	0.86		5.08
Anomalies of Respiratory System	5	8	8	7	8	11	6	9	16	14	92	94.9	0.97		3.03
Cleft Palate/Cleft Lip	14	5	15	11	6	12	9	10	6	10	98	103.8	0.94		3.23
Anomalies of Upper Alimentary Tract	19	27	28	29	19	17	16	11	19	15	200	216.2	0.93		6.59
tracheoesophageal fistula	1	4	-	-	1	-	2	-	1	1	10	10.0	1.00		0.33
pyloric stenosis	-	8	5	5	8	5	5	1	5	3	45	34.8	1.29		1.48
other anomalies of alimentary tract	18	15	23	24	10	12	9	10	13	11	145	171.4	0.85	-	4.78
Other Anomalies of Digestive System	4	9	7	10	5	6	15	5	4	11	76	92.4	0.82		2.51
Anomalies of Genital Organs	39	40	35	44	24	41	32	28	35	16	334	406.0	0.82	-	11.01
Anomalies of Urinary System	12	13	14	17	20	23	14	13	24	32	182	198.0	0.92		6.00
renal agenesis	2	1	1	4	1	1	4	1	-	5	20	19.4	1.03		0.66
cystic kidney disease	1	-	2	2	-	1	-	2	1	2	11	25.9	0.42	-	0.36
other urinary anomalies	9	12	11	11	19	21	10	10	23	25	151	152.7	0.99		4.98
Congenital Musculoskeletal Deformities	58	49	84	64	62	65	60	49	60	52	603	837.0	0.72	-	19.88
anomalies of spine	1	-	1	3	5	-	3	-	5	-	18	16.7	1.08		0.59
congenital dislocation of hip	6	10	11	6	16	10	12	12	13	14	110	274.2	0.40	-	3.63
varus, valgus, clubfoot	23	18	24	21	10	13	15	17	21	20	182	172.6	1.05		6.00
polydactyly, syndactyly	6	2	7	1	11	9	8	10	9	7	70	76.9	0.91		2.31
limb reductions	1	1	4	1	3	3	1	-	-	-	14	20.9	0.67		0.46
chondro/ osteo dystrophies	3	2	4	3	2	7	2	3	1	-	27	14.1	1.91	+	0.89
other musculoskeletal deformities	18	16	33	29	15	23	19	7	11	11	182	261.5	0.70	-	6.00
Anomalies of the Integument	11	11	14	9	10	11	12	6	9	8	101	186.7	0.54	-	3.33
hemangioma and lymphangioma	5	5	4	4	6	4	7	4	4	1	44	50.0	0.88		1.45
other anomalies of integument	6	6	10	5	4	7	5	2	5	7	57	136.7	0.42	-	1.88
Chromosomal Anomalies	11	9	14	17	11	10	7	16	20	22	137	116.1	1.18		4.52
Down's syndrome	7	6	6	7	8	3	2	11	8	7	65	53.7	1.21		2.14
Turner's syndrome	1	1	1	3	-	-	-	-	1	-	7	6.8	1.03		0.23
other chromosomal anomalies	3	2	7	7	3	7	5	5	11	15	65	55.6	1.17		2.14
Multiple & Multiple System Anomalies	6	1	15	3	2	8	7	6	5	4	57	60.8	0.94		1.88
Other and Unspecified Anomalies	4	7	8	4	5	4	4	2	2	3	43	49.9	0.86		1.42
Total Diagnoses	272	295	401	365	278	348	266	280	288	287	3,080	3,617.7	0.85	-	101.52
(Rate /1,000 total births)	(78.3)	(85.9)	(121.6)	(117.2)	(90.8)	(121.2)	(94.7)	(103.8)	(101.0)	(105.2)					
Total Cases	187	212	239	230	183	192	180	160	170	164	1,917	2,283.1	0.84	-	63.19
(Rate /1,000 total births)	(53.8)	(61.8)	(72.5)	(73.9)	(59.8)	(66.9)	(64.1)	(59.3)	(59.6)	(60.1)					
Total Births	3,476	3,433	3,298	3,114	3,061	2,871	2,808	2,698	2,851	2,729	30,339				

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected (p<0.05, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. Observed are counts of the specified congenital anomalies recorded in the HSR for births for the years shown. HSDA/HA assignment by usual address at time of birth. Diagnosis with unknown HSDA/HA are included in BC Total. An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 21

Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth British Columbia, 1993-2002

42 Central Vancouver Island HSDA

Diagnosis	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	1993-2002 Obs	Exp	Ratio	(p)	Rate
Nervous System Defects	16	8	17	22	15	12	17	6	10	2	125	111.1	1.13		5.45
anencephalus & similar defects	-	-	-	-	-	-	-	-	1	-	1	4.1	0.24		0.04
other neural tube defects	3	2	5	8	1	4	4	-	-	-	27	22.6	1.20		1.18
hydrocephalus	2	1	1	4	4	-	-	1	2	-	15	14.1	1.07		0.65
other nervous system defects	11	5	11	10	9	8	13	5	7	2	81	70.1	1.16		3.53
Anomalies of Eye	18	12	9	19	17	22	8	5	9	9	128	108.1	1.18		5.58
Anomalies of Ear, Face, Neck	14	16	21	8	18	9	15	4	9	5	119	111.5	1.07		5.19
Anomalies of Heart	17	23	68	30	49	32	41	35	29	47	371	348.7	1.06		16.17
transposition of great vessels	1	-	3	3	-	-	-	2	1	2	12	17.5	0.69		0.52
tetralogy of Fallot	1	-	1	1	1	2	-	-	3	1	10	10.9	0.92		0.44
ventricular septal defect	9	9	19	5	12	10	7	5	9	9	94	88.2	1.07		4.10
hypoplastic left heart syndrome	-	1	1	-	1	-	-	-	1	-	4	6.9	0.58		0.17
other heart anomalies	6	13	44	21	35	20	34	28	15	35	251	225.2	1.11		10.94
Other Circulatory System Anomalies	11	31	32	38	31	23	27	40	21	46	300	270.5	1.11		13.08
patent ductus arteriosus	6	16	15	21	19	11	13	20	11	24	156	135.0	1.16		6.80
Anomalies of Respiratory System	1	9	8	4	10	10	7	4	8	3	64	71.8	0.89		2.79
Cleft Palate/Cleft Lip	11	8	14	10	3	10	10	6	7	10	89	78.5	1.13		3.88
Anomalies of Upper Alimentary Tract	17	32	36	27	15	11	41	19	30	15	243	163.5	1.49	+	10.59
tracheoesophageal fistula	1	2	3	-	2	-	-	1	2	2	13	7.5	1.72	+	0.57
pyloric stenosis	2	4	8	6	2	2	4	3	6	6	43	26.3	1.63	+	1.87
other anomalies of alimentary tract	14	26	25	21	11	9	37	15	22	7	187	129.6	1.44	+	8.15
Other Anomalies of Digestive System	1	5	10	9	4	7	6	6	7	5	60	69.8	0.86		2.62
Anomalies of Genital Organs	27	45	37	45	32	21	43	26	29	18	323	307.0	1.05		14.08
Anomalies of Urinary System	12	14	18	21	8	15	22	27	22	14	173	149.7	1.16		7.54
renal agenesis	1	1	1	-	-	3	5	-	1	3	15	14.7	1.02		0.65
cystic kidney disease	1	2	-	4	1	5	3	-	2	1	19	19.6	0.97		0.83
other urinary anomalies	10	11	17	17	7	7	14	27	19	10	139	115.5	1.20	+	6.06
Congenital Musculoskeletal Deformities	44	55	64	94	65	60	71	44	44	35	576	633.0	0.91	-	25.10
anomalies of spine	2	-	2	1	3	1	3	-	1	3	16	12.6	1.27		0.70
congenital dislocation of hip	5	13	8	13	11	16	13	7	19	7	112	207.4	0.54	-	4.88
varus, valgus, clubfoot	14	12	12	27	12	10	14	10	6	8	125	130.5	0.96		5.45
polydactyly, syndactyly	6	4	7	11	4	4	10	4	5	4	59	58.2	1.01		2.57
limb reductions	2	-	5	1	-	1	2	-	1	-	12	15.8	0.76		0.52
chondro/ osteo dystrophies	2	-	3	3	-	2	-	-	1	-	11	10.7	1.03		0.48
other musculoskeletal deformities	13	26	27	38	35	26	29	23	11	13	241	197.7	1.22	+	10.50
Anomalies of the Integument	4	18	15	22	12	8	27	23	19	8	156	141.2	1.10		6.80
hemangioma and lymphangioma	1	2	6	3	4	1	6	6	4	3	36	37.8	0.95		1.57
other anomalies of integument	3	16	9	19	8	7	21	17	15	5	120	103.4	1.16		5.23
Chromosomal Anomalies	12	7	7	15	16	13	12	5	14	10	111	87.8	1.26	+	4.84
Down's syndrome	5	4	5	9	4	2	5	3	9	6	52	40.6	1.28		2.27
Turner's syndrome	4	1	-	-	2	-	1	-	2	-	10	5.1	1.95	+	0.44
other chromosomal anomalies	3	2	2	6	10	11	6	2	3	4	49	42.0	1.17		2.14
Multiple & Multiple System Anomalies	2	5	8	4	13	5	5	6	6	9	63	46.0	1.37	+	2.75
Other and Unspecified Anomalies	2	4	9	9	6	5	3	5	4	3	50	37.7	1.32	+	2.18
Total Diagnoses	209	292	373	377	314	263	355	261	268	239	2,951	2,735.9	1.08	+	128.62
(Rate /1,000 total births)	(82.3)	(110.7)	(148.1)	(148.5)	(133.7)	(118.6)	(161.7)	(130.7)	(131.8)	(124.6)					
Total Cases	152	212	212	236	187	156	207	177	171	109	1,819	1,726.6	1.05	+	79.28
(Rate /1,000 total births)	(59.9)	(80.4)	(84.2)	(92.9)	(79.6)	(70.3)	(94.3)	(88.6)	(84.1)	(56.8)					
Total Births	2,538	2,638	2,518	2,539	2,348	2,218	2,196	1,997	2,034	1,918	22,944				

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. Observed are counts of the specified congenital anomalies recorded in the HSR for births for the years shown. HSDA/HA assignment by usual address at time of birth. Diagnosis with unknown HSDA/HA are included in BC Total. An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 22

Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth British Columbia, 1993-2002

43 North Vancouver Island HSDA

Diagnosis	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	1993-2002 Obs	Exp	Ratio	(p)	Rate
Nervous System Defects	5	4	7	14	3	2	3	6	7	4	55	59.3	0.93		4.49
anencephalus & similar defects	-	-	-	-	-	-	-	-	1	-	1	2.2	0.45		0.08
other neural tube defects	-	3	2	3	1	-	-	-	-	-	9	12.0	0.75		0.74
hydrocephalus	-	1	2	2	1	-	1	1	1	-	9	7.5	1.20		0.74
other nervous system defects	5	-	2	9	1	2	2	5	5	4	35	37.4	0.94		2.86
Anomalies of Eye	7	13	6	17	7	2	6	5	2	1	66	57.7	1.14		5.39
Anomalies of Ear, Face, Neck	6	10	10	7	2	7	2	5	7	1	57	59.5	0.96		4.66
Anomalies of Heart	28	16	23	28	14	23	11	14	11	16	184	186.1	0.99		15.03
transposition of great vessels	2	-	-	1	-	-	-	2	-	1	6	9.3	0.64		0.49
tetralogy of Fallot	2	1	3	-	-	2	-	-	1	2	11	5.8	1.89	+	0.90
ventricular septal defect	6	2	6	10	3	6	-	5	2	1	41	47.1	0.87		3.35
hypoplastic left heart syndrome	-	-	-	-	-	-	1	1	-	1	3	3.7	0.81		0.25
other heart anomalies	18	13	14	17	11	15	10	6	8	11	123	120.2	1.02		10.05
Other Circulatory System Anomalies	11	19	18	30	21	13	13	13	9	14	161	144.3	1.12		13.15
patent ductus arteriosus	5	5	9	16	9	7	8	10	6	7	82	72.0	1.14		6.70
Anomalies of Respiratory System	3	4	4	4	2	2	1	6	2	5	33	38.3	0.86		2.70
Cleft Palate/Cleft Lip	3	3	8	3	1	5	1	4	3	4	35	41.9	0.84		2.86
Anomalies of Upper Alimentary Tract	7	14	6	11	6	6	7	8	13	8	86	87.2	0.99		7.02
tracheoesophageal fistula	-	1	-	1	1	1	-	-	-	1	5	4.0	1.24		0.41
pyloric stenosis	-	2	1	2	1	2	1	2	4	-	15	14.1	1.07		1.23
other anomalies of alimentary tract	7	11	5	8	4	3	6	6	9	7	66	69.2	0.95		5.39
Other Anomalies of Digestive System	6	7	3	3	6	4	3	7	2	2	43	37.3	1.15		3.51
Anomalies of Genital Organs	19	25	22	22	17	15	13	15	11	2	161	163.8	0.98		13.15
Anomalies of Urinary System	9	9	6	6	5	6	4	3	3	2	53	79.9	0.66	-	4.33
renal agenesis	1	1	-	-	-	2	-	1	1	-	6	7.8	0.77		0.49
cystic kidney disease	-	2	-	2	1	1	-	-	1	-	7	10.4	0.67		0.57
other urinary anomalies	8	6	6	4	4	3	4	2	1	2	40	61.6	0.65	-	3.27
Congenital Musculoskeletal Deformities	20	29	57	43	25	32	30	28	12	11	287	337.7	0.85	-	23.44
anomalies of spine	-	2	2	4	-	1	-	1	-	1	11	6.7	1.63		0.90
congenital dislocation of hip	3	3	10	7	2	5	2	5	-	4	41	110.7	0.37	-	3.35
varus, valgus, clubfoot	7	7	15	10	4	7	5	4	5	3	67	69.6	0.96		5.47
polydactyly, syndactyly	6	3	2	3	3	6	2	4	4	1	34	31.0	1.10		2.78
limb reductions	1	-	3	-	3	1	1	-	-	-	9	8.4	1.07		0.74
chondro/ osteo dystrophies	-	1	2	-	-	-	4	-	-	-	7	5.7	1.23		0.57
other musculoskeletal deformities	3	13	23	19	13	12	16	14	3	2	118	105.5	1.12		9.64
Anomalies of the Integument	2	18	15	9	3	7	6	8	12	1	81	75.3	1.08		6.62
hemangioma and lymphangioma	-	3	1	2	-	3	4	1	2	-	16	20.2	0.79		1.31
other anomalies of integument	2	15	14	7	3	4	2	7	10	1	65	55.2	1.18		5.31
Chromosomal Anomalies	4	4	9	7	1	7	2	1	4	-	39	46.8	0.83		3.19
Down's syndrome	1	2	5	2	1	3	-	1	1	-	16	21.7	0.74		1.31
Turner's syndrome	-	-	-	-	-	-	-	-	-	-	-	2.7	-		-
other chromosomal anomalies	3	2	4	5	-	4	2	-	3	-	23	22.4	1.03		1.88
Multiple & Multiple System Anomalies	-	3	1	4	-	2	2	3	4	2	21	24.5	0.86		1.72
Other and Unspecified Anomalies	2	5	10	4	-	3	4	-	2	-	30	20.1	1.49	+	2.45
Total Diagnoses	132	183	205	212	113	136	108	126	104	73	1,392	1,459.9	0.95		113.70
(Rate /1,000 total births)	(97.0)	(136.7)	(150.2)	(153.2)	(88.7)	(110.7)	(92.6)	(119.7)	(98.9)	(71.5)					
Total Cases	81	116	122	115	75	71	73	87	70	32	842	921.3	0.91	-	68.77
(Rate /1,000 total births)	(59.5)	(86.6)	(89.4)	(83.1)	(58.9)	(57.8)	(62.6)	(82.6)	(66.5)	(31.3)					
Total Births	1,361	1,339	1,365	1,384	1,274	1,228	1,166	1,053	1,052	1,021	12,243				

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected (p<0.05, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. Observed are counts of the specified congenital anomalies recorded in the HSR for births for the years shown. HSDA/HA assignment by usual address at time of birth. Diagnosis with unknown HSDA/HA are included in BC Total. An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 23

Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth
British Columbia, 1993-2002

51 Northwest HSDA

Diagnosis	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	1993-2002 Obs	Exp	Ratio	(p)	Rate
Nervous System Defects	9	15	5	10	9	9	14	4	10	2	87	60.3	1.44	+	6.98
anencephalus & similar defects	-	-	-	1	-	-	2	-	-	-	3	2.2	1.34		0.24
other neural tube defects	7	4	-	5	1	2	3	4	2	-	28	12.2	2.29	+	2.25
hydrocephalus	-	2	3	-	1	1	2	-	4	1	14	7.6	1.83	+	1.12
other nervous system defects	2	9	2	4	7	6	7	-	4	1	42	38.1	1.10		3.37
Anomalies of Eye	10	6	4	4	5	3	2	6	3	1	44	58.7	0.75		3.53
Anomalies of Ear, Face, Neck	10	5	5	11	10	2	5	-	3	3	54	60.5	0.89		4.34
Anomalies of Heart	32	13	11	14	23	28	12	17	24	18	192	189.3	1.01		15.41
transposition of great vessels	4	-	-	-	-	3	-	3	2	1	13	9.5	1.37		1.04
tetralogy of Fallot	2	-	-	-	1	1	1	1	-	-	6	5.9	1.01		0.48
ventricular septal defect	2	3	2	1	5	6	4	4	4	4	35	47.9	0.73		2.81
hypoplastic left heart syndrome	-	1	-	-	-	-	-	-	1	-	2	3.8	0.53		0.16
other heart anomalies	24	9	9	13	17	18	7	9	17	13	136	122.3	1.11		10.92
Other Circulatory System Anomalies	10	24	22	17	18	22	10	17	11	17	168	146.8	1.14		13.49
patent ductus arteriosus	3	9	8	13	9	12	1	8	5	9	77	73.3	1.05		6.18
Anomalies of Respiratory System	5	4	4	5	8	10	8	4	6	2	56	39.0	1.44	+	4.50
Cleft Palate/Cleft Lip	3	2	3	5	13	8	3	5	5	2	49	42.6	1.15		3.93
Anomalies of Upper Alimentary Tract	11	6	4	10	13	12	10	9	1	1	77	88.8	0.87		6.18
tracheoesophageal fistula	-	-	1	-	2	-	-	-	-	-	3	4.1	0.73		0.24
pyloric stenosis	-	3	-	3	2	5	3	2	-	-	18	14.3	1.26		1.45
other anomalies of alimentary tract	11	3	3	7	9	7	7	7	1	1	56	70.4	0.80		4.50
Other Anomalies of Digestive System	7	-	3	2	5	6	2	4	3	4	36	37.9	0.95		2.89
Anomalies of Genital Organs	21	18	20	11	11	14	10	20	15	1	141	166.7	0.85	-	11.32
Anomalies of Urinary System	20	7	14	5	5	11	17	1	16	1	97	81.3	1.19		7.79
renal agenesis	2	1	-	-	-	2	1	-	-	-	6	8.0	0.75		0.48
cystic kidney disease	2	2	-	1	1	2	4	-	3	-	15	10.6	1.41		1.20
other urinary anomalies	16	4	14	4	4	7	12	1	13	1	76	62.7	1.21		6.10
Congenital Musculoskeletal Deformities	16	26	17	28	53	25	28	43	25	13	274	343.6	0.80	-	22.00
anomalies of spine	-	-	-	1	1	-	-	1	-	2	5	6.8	0.73		0.40
congenital dislocation of hip	5	4	2	5	14	3	9	9	4	1	56	112.6	0.50	-	4.50
varus, valgus, clubfoot	2	6	2	9	17	4	6	7	4	3	60	70.9	0.85		4.82
polydactyly, syndactyly	2	3	2	4	3	4	3	6	2	2	31	31.6	0.98		2.49
limb reductions	1	1	1	-	-	-	-	1	2	-	6	8.6	0.70		0.48
chondro/ osteo dystrophies	-	1	2	-	1	5	-	-	1	-	10	5.8	1.72		0.80
other musculoskeletal deformities	6	11	8	9	17	9	10	19	12	5	106	107.4	0.99		8.51
Anomalies of the Integument	4	2	9	8	7	3	12	6	4	7	62	76.7	0.81		4.98
hemangioma and lymphangioma	2	-	6	2	1	2	1	3	1	2	20	20.5	0.97		1.61
other anomalies of integument	2	2	3	6	6	1	11	3	3	5	42	56.1	0.75		3.37
Chromosomal Anomalies	2	3	1	4	6	4	3	7	2	2	34	47.7	0.71	-	2.73
Down's syndrome	2	2	-	1	-	1	-	2	1	-	9	22.1	0.41	-	0.72
Turner's syndrome	-	-	-	3	-	-	-	-	-	1	4	2.8	1.44		0.32
other chromosomal anomalies	-	1	1	-	6	3	3	5	1	1	21	22.8	0.92		1.69
Multiple & Multiple System Anomalies	3	2	2	4	1	2	1	3	3	1	22	25.0	0.88		1.77
Other and Unspecified Anomalies	7	5	3	4	4	2	3	-	2	-	30	20.5	1.46	+	2.41
Total Diagnoses	170	138	127	142	191	161	140	146	133	75	1,423	1,485.3	0.96		114.24
(Rate /1,000 total births)	(123.7)	(92.4)	(94.8)	(99.6)	(144.9)	(136.9)	(122.6)	(130.0)	(128.4)	(73.0)					
Total Cases	82	86	83	104	107	97	87	75	72	35	828	937.3	0.88	-	66.47
(Rate /1,000 total births)	(59.7)	(57.6)	(61.9)	(73.0)	(81.2)	(82.5)	(76.2)	(66.8)	(69.5)	(34.0)					
Total Births	1,374	1,494	1,340	1,425	1,318	1,176	1,142	1,123	1,036	1,028	12,456				

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. Observed are counts of the specified congenital anomalies recorded in the HSR for births for the years shown. HSDA/HA assignment by usual address at time of birth. Diagnosis with unknown HSDA/HA are included in BC Total. An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 24

Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth
British Columbia, 1993-2002

52 Northern Interior HSDA

Diagnosis	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	1993-2002 Obs	Exp	Ratio	(p)	Rate
Nervous System Defects	**10**	**15**	**20**	**4**	**8**	**9**	**6**	**14**	**9**	**4**	**99**	**94.6**	**1.05**		**5.07**
anencephalus & similar defects	1	2	1	-	-	-	-	-	-	-	4	3.5	1.14		0.20
other neural tube defects	2	2	5	-	-	4	2	1	2	2	20	19.2	1.04		1.02
hydrocephalus	2	2	2	-	1	-	-	2	-	-	9	12.0	0.75		0.46
other nervous system defects	5	9	11	4	7	5	4	11	7	2	65	59.7	1.09		3.33
Anomalies of Eye	**10**	**14**	**19**	**13**	**14**	**5**	**8**	**9**	**8**	**4**	**104**	**92.1**	**1.13**		**5.32**
Anomalies of Ear, Face, Neck	**9**	**8**	**10**	**12**	**7**	**7**	**5**	**8**	**8**	**1**	**75**	**95.0**	**0.79**	-	**3.84**
Anomalies of Heart	**19**	**37**	**59**	**52**	**55**	**68**	**25**	**28**	**37**	**20**	**400**	**297.0**	**1.35**	+	**20.47**
transposition of great vessels	-	2	3	4	2	8	3	-	1	1	24	14.9	1.61	+	1.23
tetralogy of Fallot	3	-	-	-	1	1	1	1	-	-	7	9.3	0.75		0.36
ventricular septal defect	4	11	13	11	9	12	6	7	9	8	90	75.1	1.20		4.61
hypoplastic left heart syndrome	1	-	3	1	1	-	-	-	3	-	9	5.9	1.53		0.46
other heart anomalies	11	24	40	36	42	47	16	20	24	11	270	191.8	1.41	+	13.82
Other Circulatory System Anomalies	**8**	**21**	**28**	**35**	**43**	**25**	**27**	**18**	**33**	**19**	**257**	**230.3**	**1.12**		**13.15**
patent ductus arteriosus	5	10	16	18	17	14	10	10	18	12	130	115.0	1.13		6.65
Anomalies of Respiratory System	**7**	**5**	**10**	**8**	**8**	**10**	**14**	**8**	**3**	**4**	**77**	**61.1**	**1.26**	+	**3.94**
Cleft Palate/Cleft Lip	**10**	**14**	**8**	**16**	**13**	**13**	**5**	**7**	**1**	**5**	**92**	**66.8**	**1.38**	+	**4.71**
Anomalies of Upper Alimentary Tract	**7**	**17**	**22**	**17**	**18**	**22**	**26**	**18**	**11**	**4**	**162**	**139.3**	**1.16**		**8.29**
tracheoesophageal fistula	1	-	-	-	-	-	1	-	-	-	2	6.4	0.31		0.10
pyloric stenosis	1	2	3	3	2	1	5	3	2	-	22	22.4	0.98		1.13
other anomalies of alimentary tract	5	15	19	14	16	21	20	15	9	4	138	110.4	1.25	+	7.06
Other Anomalies of Digestive System	**3**	**5**	**5**	**8**	**3**	**15**	**2**	**11**	**4**	**2**	**58**	**99.5**	**0.58**		**2.97**
Anomalies of Genital Organs	**22**	**37**	**28**	**31**	**44**	**33**	**27**	**37**	**28**	**7**	**294**	**261.5**	**1.12**	+	**15.05**
Anomalies of Urinary System	**12**	**16**	**7**	**11**	**20**	**22**	**21**	**21**	**2**	**12**	**144**	**127.5**	**1.13**		**7.37**
renal agenesis	2	4	-	1	3	5	4	-	-	1	20	12.5	1.60	+	1.02
cystic kidney disease	5	4	1	2	2	2	2	1	-	4	23	16.7	1.38		1.18
other urinary anomalies	5	8	6	8	15	15	15	20	2	7	101	98.4	1.03		5.17
Congenital Musculoskeletal Deformities	**31**	**66**	**69**	**58**	**57**	**88**	**64**	**84**	**59**	**20**	**596**	**539.1**	**1.11**	+	**30.50**
anomalies of spine	1	1	3	-	1	2	1	1	1	-	11	10.7	1.02		0.56
congenital dislocation of hip	8	13	4	10	2	12	5	12	14	5	83	176.6	0.47	-	4.25
varus, valgus, clubfoot	4	20	15	8	14	17	12	19	15	3	127	111.2	1.14		6.50
polydactyly, syndactyly	3	1	9	3	4	5	4	7	5	-	41	49.5	0.83		2.10
limb reductions	1	1	1	4	5	2	1	3	2	2	22	13.5	1.63	+	1.13
chondro/ osteo dystrophies	4	1	-	-	1	3	1	-	1	-	11	9.1	1.21		0.56
other musculoskeletal deformities	12	29	37	33	30	47	40	42	21	10	301	168.4	1.79	+	15.40
Anomalies of the Integument	**12**	**25**	**19**	**14**	**24**	**21**	**22**	**15**	**13**	**4**	**169**	**120.3**	**1.41**	+	**8.65**
hemangioma and lymphangioma	1	8	1	5	3	3	5	2	2	3	33	32.2	1.03		1.69
other anomalies of integument	11	17	18	9	21	18	17	13	11	1	136	88.1	1.54	+	6.96
Chromosomal Anomalies	**6**	**1**	**12**	**3**	**11**	**3**	**3**	**5**	**6**	**1**	**51**	**74.8**	**0.68**	-	**2.61**
Down's syndrome	4	-	6	-	6	2	2	3	4	1	28	34.6	0.81		1.43
Turner's syndrome	-	1	-	2	-	-	-	-	-	-	3	4.4	0.69		0.15
other chromosomal anomalies	2	-	6	1	5	1	1	2	2	-	20	35.8	0.56	-	1.02
Multiple & Multiple System Anomalies	**5**	**1**	**3**	**5**	**1**	**5**	**4**	**3**	**3**	**6**	**36**	**39.1**	**0.92**		**1.84**
Other and Unspecified Anomalies	**4**	**3**	**4**	**6**	**5**	**8**	**9**	**1**	**3**	**1**	**44**	**32.1**	**1.37**	+	**2.25**
Total Diagnoses	**175**	**285**	**323**	**293**	**331**	**354**	**268**	**287**	**228**	**114**	**2,658**	**2,330.1**	**1.14**	+	**136.02**
(Rate /1,000 total births)	**(79.7)**	**(128.8)**	**(149.0)**	**(135.1)**	**(159.2)**	**(177.8)**	**(148.8)**	**(173.2)**	**(138.3)**	**(71.5)**					
Total Cases	**118**	**204**	**203**	**204**	**185**	**188**	**174**	**180**	**151**	**67**	**1,674**	**1,470.5**	**1.14**	+	**85.67**
(Rate /1,000 total births)	**(53.7)**	**(92.2)**	**(93.6)**	**(94.1)**	**(89.0)**	**(94.4)**	**(95.3)**	**(108.6)**	**(91.6)**	**(42.0)**					
Total Births	**2,197**	**2,212**	**2,168**	**2,168**	**2,079**	**1,991**	**1,825**	**1,657**	**1,649**	**1,595**	**19,541**				

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected (p<0.05, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. Observed are counts of the specified congenital anomalies recorded in the HSR for births for the years shown. HSDA/HA assignment by usual address at time of birth. Diagnosis with unknown HSDA/HA are included in BC Total. An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 25

Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth British Columbia, 1993-2002

53 Northeast HSDA

Diagnosis	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	1993-2002 Obs	Exp	Ratio	(p)	Rate
Nervous System Defects	3	5	4	2	5	4	4	2	-	5	34	46.2	0.74		3.57
anencephalus & similar defects	-	-	-	-	-	-	-	1	-	-	1	1.7	0.58		0.10
other neural tube defects	2	2	1	-	4	-	3	-	-	1	13	9.4	1.39		1.36
hydrocephalus	-	2	-	-	-	1	-	-	-	1	4	5.9	0.68		0.42
other nervous system defects	1	1	3	2	1	3	1	1	-	3	16	29.1	0.55	-	1.68
Anomalies of Eye	1	4	5	4	3	7	2	4	1	-	31	44.9	0.69	-	3.25
Anomalies of Ear, Face, Neck	2	5	8	1	2	4	1	5	2	2	32	46.3	0.69	-	3.36
Anomalies of Heart	4	15	1	4	12	10	7	14	7	13	87	144.9	0.60	-	9.12
transposition of great vessels	1	-	-	-	1	-	-	-	-	-	2	7.3	0.28		0.21
tetralogy of Fallot	-	1	-	-	1	-	1	1	-	-	4	4.5	0.88		0.42
ventricular septal defect	1	2	-	3	4	1	2	2	2	1	18	36.7	0.49	-	1.89
hypoplastic left heart syndrome	-	-	-	-	-	-	-	-	1	1	2	2.9	0.70		0.21
other heart anomalies	2	12	1	1	6	9	4	11	4	11	61	93.6	0.65	-	6.40
Other Circulatory System Anomalies	2	10	6	4	6	7	6	3	5	13	62	112.4	0.55	-	6.50
patent ductus arteriosus	1	4	2	3	3	-	4	2	4	8	31	56.1	0.55	-	3.25
Anomalies of Respiratory System	1	3	-	2	1	1	1	1	-	2	12	29.8	0.40	-	1.26
Cleft Palate/Cleft Lip	4	1	7	2	4	1	4	1	1	3	28	32.6	0.86		2.94
Anomalies of Upper Alimentary Tract	3	3	3	9	3	7	10	11	4	10	63	68.0	0.93		6.61
tracheoesophageal fistula	-	-	-	-	-	1	-	-	-	1	2	3.1	0.64		0.21
pyloric stenosis	-	-	1	-	-	1	5	-	1	2	10	10.9	0.91		1.05
other anomalies of alimentary tract	3	3	2	9	3	5	5	11	3	7	51	53.9	0.95		5.35
Other Anomalies of Digestive System	1	2	-	-	4	1	-	5	1	1	15	29.0	0.52	-	1.57
Anomalies of Genital Organs	8	15	13	11	13	8	17	17	6	5	113	127.6	0.89		11.85
Anomalies of Urinary System	3	6	-	3	1	5	3	14	1	3	39	62.2	0.63	-	4.09
renal agenesis	1	-	-	-	-	-	-	2	-	1	4	6.1	0.66		0.42
cystic kidney disease	1	-	-	2	-	4	-	2	-	-	9	8.1	1.11		0.94
other urinary anomalies	1	6	-	1	1	1	3	10	1	2	26	48.0	0.54	-	2.73
Congenital Musculoskeletal Deformities	21	24	25	26	19	24	18	35	15	21	228	263.1	0.87	-	23.91
anomalies of spine	1	2	2	1	1	-	1	1	-	1	10	5.2	1.91	+	1.05
congenital dislocation of hip	2	3	5	-	2	-	3	6	5	3	29	86.2	0.34	-	3.04
varus, valgus, clubfoot	7	8	6	7	5	4	4	10	3	5	59	54.2	1.09		6.19
polydactyly, syndactyly	2	2	2	4	2	1	1	4	1	2	21	24.2	0.87		2.20
limb reductions	1	-	1	-	2	1	1	3	-	-	9	6.6	1.37		0.94
chondro/ osteo dystrophies	-	1	-	2	-	-	-	-	1	-	4	4.4	0.90		0.42
other musculoskeletal deformities	8	8	9	12	7	18	8	11	5	10	96	82.2	1.17		10.07
Anomalies of the Integument	3	3	2	2	4	2	2	6	4	2	30	58.7	0.51	-	3.15
hemangioma and lymphangioma	-	1	-	1	2	-	1	1	-	-	6	15.7	0.38	-	0.63
other anomalies of integument	3	2	2	1	2	2	1	5	4	2	24	43.0	0.56	-	2.52
Chromosomal Anomalies	3	3	1	1	6	1	5	-	1	-	21	36.5	0.58	-	2.20
Down's syndrome	-	2	1	-	3	1	4	-	-	-	11	16.9	0.65		1.15
Turner's syndrome	-	-	-	-	-	-	-	-	-	-	-	2.1	-		-
other chromosomal anomalies	3	1	-	1	3	-	1	-	1	-	10	17.5	0.57		1.05
Multiple & Multiple System Anomalies	-	3	6	1	-	2	7	-	2	6	27	19.1	1.41		2.83
Other and Unspecified Anomalies	-	2	1	1	-	1	1	-	-	3	9	15.7	0.57		0.94
Total Diagnoses	59	104	82	73	83	85	88	118	50	89	831	1,137.1	0.73	-	87.14
(Rate /1,000 total births)	(55.5)	(96.9)	(79.8)	(73.1)	(83.6)	(91.7)	(102.3)	(130.2)	(59.8)	(104.6)					
Total Cases	35	64	56	57	55	57	52	75	29	46	526	717.8	0.73	-	55.16
(Rate /1,000 total births)	(32.9)	(59.6)	(54.5)	(57.1)	(55.4)	(61.5)	(60.5)	(82.8)	(34.7)	(54.1)					
Total Births	1,064	1,073	1,027	999	993	927	860	906	836	851	9,536				

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. Observed are counts of the specified congenital anomalies recorded in the HSR for births for the years shown. HSDA/HA assignment by usual address at time of birth. Diagnosis with unknown HSDA/HA are included in BC Total. An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 26
Congenital Anomaly Cases by HSDA and Health Authority
British Columbia, 1993 - 2002

Health Service Delivery Area (HSDA)	Total Births	Observed	Expected	Ratio	(p)	Rate
11 East Kootenay	7,561	430	569.0	0.76	-	56.87
12 Kootenay Boundary	7,221	414	543.4	0.76	-	57.33
13 Okanagan	28,406	2,122	2,137.6	0.99		74.70
14 Thompson Cariboo Shuswap	21,896	1,559	1,647.7	0.95	-	71.20
21 Fraser East	31,209	2,105	2,348.5	0.90	-	67.45
22 Fraser North	58,875	4,990	4,430.5	1.13	+	84.76
23 Fraser South	73,674	5,621	5,544.1	1.01		76.30
31 Richmond	16,485	1,126	1,240.5	0.91	-	68.30
32 Vancouver	59,536	5,207	4,480.2	1.16	+	87.46
33 North Shore/Coast Garibaldi	26,197	1,799	1,971.4	0.91	-	68.67
41 South Vancouver Island	30,339	1,917	2,283.1	0.84	-	63.19
42 Central Vancouver Island	22,944	1,819	1,726.6	1.05	+	79.28
43 North Vancouver Island	12,243	842	921.3	0.91	-	68.77
51 Northwest	12,456	828	937.3	0.88	-	66.47
52 Northern Interior	19,541	1,674	1,470.5	1.14	+	85.67
53 Northeast	9,536	526	717.6	0.73	-	55.16
Health Authority (HA)						
01 Interior HA	65,084	4,525	4,897.7	0.92	-	69.53
02 Fraser HA	163,758	12,716	12,323.1	1.03	+	77.65
03 Vancouver Coastal HA	102,218	8,132	7,692.1	1.06	+	79.56
04 Vancouver Island HA	65,526	4,578	4,931.0	0.93	-	69.87
05 Northern HA	41,533	3,028	3,125.4	0.97		72.91
Provincial Total	438,248	32,979	32,979.0	1.00		75.25

Table 27
Congenital Anomaly Diagnoses by HSDA and Health Authority
British Columbia, 1993 - 2002

Health Service Delivery Area (HSDA)	Total Births	Observed	Expected	Ratio	(p)	Rate
11 East Kootenay	7,561	611	901.6	0.68	-	80.81
12 Kootenay Boundary	7,221	724	861.1	0.84	-	100.26
13 Okanagan	28,406	3,447	3,387.2	1.02		121.35
14 Thompson Cariboo Shuswap	21,896	2,561	2,610.9	0.98		116.96
21 Fraser East	31,209	3,497	3,721.5	0.94	-	112.05
22 Fraser North	58,875	7,561	7,020.4	1.08	+	128.42
23 Fraser South	73,674	8,909	8,785.1	1.01		120.92
31 Richmond	16,485	1,755	1,965.7	0.89	-	106.46
32 Vancouver	59,536	8,006	7,099.3	1.13	+	134.47
33 North Shore/Coast Garibaldi	26,197	2,852	3,123.8	0.91	-	108.87
41 South Vancouver Island	30,339	3,080	3,617.7	0.85	-	101.52
42 Central Vancouver Island	22,944	2,951	2,735.9	1.08	+	128.62
43 North Vancouver Island	12,243	1,392	1,459.9	0.95		113.70
51 Northwest	12,456	1,423	1,485.3	0.96		114.24
52 Northern Interior	19,541	2,658	2,330.1	1.14	+	136.02
53 Northeast	9,536	831	1,137.1	0.73	-	87.14
Health Authority (HA)						
01 Interior HA	65,084	7,343	7,760.8	0.95	-	112.82
02 Fraser HA	163,758	19,967	19,527.0	1.02	+	121.93
03 Vancouver Coastal HA	102,218	12,613	12,188.8	1.03	+	123.39
04 Vancouver Island HA	65,526	7,423	7,813.5	0.95	-	113.28
05 Northern HA	41,533	4,912	4,952.5	0.99		118.27
Provincial Total	438,248	52,258	52,258.0	1.00		119.24

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low.
Observed are counts of the specified congenital anomalies recorded in the HSR for births for the years shown.
HSDA/HA assignment by usual address at time of birth. Diagnoses with unknown HSDA/HA are included in Provincial Total.

Table 28

Congenital Nervous System Defects by HSDA and Health Authority
British Columbia, 1993 - 2002

Health Service Delivery Area (HSDA)	Total Births	Observed	Expected	Ratio	(p)	Rate
11 East Kootenay	7,561	29	36.6	0.79		3.84
12 Kootenay Boundary	7,221	32	35.0	0.92		4.43
13 Okanagan	28,406	150	137.5	1.09		5.28
14 Thompson Cariboo Shuswap	21,896	96	106.0	0.91		4.38
21 Fraser East	31,209	166	151.1	1.10		5.32
22 Fraser North	58,875	313	285.1	1.10		5.32
23 Fraser South	73,674	358	356.7	1.00		4.86
31 Richmond	16,485	51	79.8	0.64	-	3.09
32 Vancouver	59,536	276	288.3	0.96		4.64
33 North Shore/Coast Garibaldi	26,197	113	126.9	0.89		4.31
41 South Vancouver Island	30,339	138	146.9	0.94		4.55
42 Central Vancouver Island	22,944	125	111.1	1.13		5.45
43 North Vancouver Island	12,243	55	59.3	0.93		4.49
51 Northwest	12,456	87	60.3	1.44	+	6.98
52 Northern Interior	19,541	99	94.6	1.05		5.07
53 Northeast	9,536	34	46.2	0.74		3.57
Health Authority (HA)						
01 Interior HA	65,084	307	315.1	0.97		4.72
02 Fraser HA	163,758	837	792.9	1.06		5.11
03 Vancouver Coastal HA	102,218	440	494.9	0.89	-	4.30
04 Vancouver Island HA	65,526	318	317.3	1.00		4.85
05 Northern HA	41,533	220	201.1	1.09		5.30
Provincial Total	438,248	2,122	2,122.0	1.00		4.84

Table 29

Congenital Heart Defects by HSDA and Health Authority
British Columbia, 1993 - 2002

Health Service Delivery Area (HSDA)	Total Births	Observed	Expected	Ratio	(p)	Rate
11 East Kootenay	7,561	70	114.9	0.61	-	9.26
12 Kootenay Boundary	7,221	99	109.8	0.90		13.71
13 Okanagan	28,406	463	431.8	1.07		16.30
14 Thompson Cariboo Shuswap	21,896	407	332.8	1.22	+	18.59
21 Fraser East	31,209	502	474.4	1.06		16.09
22 Fraser North	58,875	758	894.9	0.85	-	12.87
23 Fraser South	73,674	1,071	1,119.8	0.96		14.54
31 Richmond	16,485	245	250.6	0.98		14.86
32 Vancouver	59,536	995	904.9	1.10	+	16.71
33 North Shore/Coast Garibaldi	26,197	353	398.2	0.89	-	13.47
41 South Vancouver Island	30,339	464	461.1	1.01		15.29
42 Central Vancouver Island	22,944	371	348.7	1.06		16.17
43 North Vancouver Island	12,243	184	186.1	0.99		15.03
51 Northwest	12,456	192	189.3	1.01		15.41
52 Northern Interior	19,541	400	297.0	1.35	+	20.47
53 Northeast	9,536	87	144.9	0.60	-	9.12
Health Authority (HA)						
01 Interior HA	65,084	1,039	989.2	1.05		15.96
02 Fraser HA	163,758	2,331	2,489.0	0.94	-	14.23
03 Vancouver Coastal HA	102,218	1,593	1,553.6	1.03		15.58
04 Vancouver Island HA	65,526	1,019	995.9	1.02		15.55
05 Northern HA	41,533	679	631.3	1.08		16.35
Provincial Total	438,248	6,661	6,661.0	1.00		15.20

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. Observed are counts of the specified congenital anomalies recorded in the HSR for births for the years shown. HSDA/HA assignment by usual address at time of birth.Diagnoses with unknown HSDA/HA are included in Provincial Total. Refer to Appendix 1 for ICD-9 and ICD 10 codes used in each category.

Table 30

Congenital Cleft Palate/Cleft Lip Defects by HSDA and Health Authority
British Columbia, 1993 - 2002

Health Service Delivery Area (HSDA)	Total Births	Observed	Expected	Ratio	(p)	Rate
11 East Kootenay	7,561	12	25.9	0.46	-	1.59
12 Kootenay Boundary	7,221	28	24.7	1.13		3.88
13 Okanagan	28,406	109	97.2	1.12		3.84
14 Thompson Cariboo Shuswap	21,896	93	74.9	1.24	+	4.25
21 Fraser East	31,209	101	106.8	0.95		3.24
22 Fraser North	58,875	203	201.4	1.01		3.45
23 Fraser South	73,674	251	252.0	1.00		3.41
31 Richmond	16,485	43	56.4	0.76		2.61
32 Vancouver	59,536	198	203.6	0.97		3.33
33 North Shore/Coast Garibaldi	26,197	70	89.6	0.78	-	2.67
41 South Vancouver Island	30,339	98	103.8	0.94		3.23
42 Central Vancouver Island	22,944	89	78.5	1.13		3.88
43 North Vancouver Island	12,243	35	41.9	0.84		2.86
51 Northwest	12,456	49	42.6	1.15		3.93
52 Northern Interior	19,541	92	66.8	1.38	+	4.71
53 Northeast	9,536	28	32.6	0.86		2.94
Health Authority (HA)						
01 Interior HA	65,084	242	222.6	1.09		3.72
02 Fraser HA	163,758	555	560.1	0.99		3.39
03 Vancouver Coastal HA	102,218	311	349.6	0.89	-	3.04
04 Vancouver Island HA	65,526	222	224.1	0.99		3.39
05 Northern HA	41,533	169	142.1	1.19	+	4.07
Provincial Total	438,248	1,499	1,499.0	1.00		3.42

Table 31

Congenital Musculoskeletal Deformities by HSDA and Health Authority
British Columbia, 1993 - 2002

Health Service Delivery Area (HSDA)	Total Births	Observed	Expected	Ratio	(p)	Rate
11 East Kootenay	7,561	176	208.6	0.84	-	23.28
12 Kootenay Boundary	7,221	123	199.2	0.62	-	17.03
13 Okanagan	28,406	702	783.6	0.90	-	24.71
14 Thompson Cariboo Shuswap	21,896	523	604.1	0.87	-	23.89
21 Fraser East	31,209	672	861.0	0.78	-	21.53
22 Fraser North	58,875	2,053	1,624.2	1.26	+	34.87
23 Fraser South	73,674	2,197	2,032.5	1.08	+	29.82
31 Richmond	16,485	445	454.8	0.98		26.99
32 Vancouver	59,536	1,979	1,642.4	1.20	+	33.24
33 North Shore/Coast Garibaldi	26,197	656	722.7	0.91	-	25.04
41 South Vancouver Island	30,339	603	837.0	0.72	-	19.88
42 Central Vancouver Island	22,944	576	633.0	0.91	-	25.10
43 North Vancouver Island	12,243	287	337.8	0.85	-	23.44
51 Northwest	12,456	274	343.6	0.80	-	22.00
52 Northern Interior	19,541	596	539.1	1.11	+	30.50
53 Northeast	9,536	228	263.1	0.87	-	23.91
Health Authority (HA)						
01 Interior HA	65,084	1,524	1,795.5	0.85	-	23.42
02 Fraser HA	163,758	4,922	4,517.6	1.09	+	30.06
03 Vancouver Coastal HA	102,218	3,080	2,819.9	1.09	+	30.13
04 Vancouver Island HA	65,526	1,466	1,807.7	0.81	-	22.37
05 Northern HA	41,533	1,098	1,145.8	0.96		26.44
Provincial Total	438,248	12,090	12,090.0	1.00		27.59

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. Observed are counts of the specified congenital anomalies recorded in the HSR for births for the years shown. HSDA/HA assignment by usual address at time of birth. Diagnoses with unknown HSDA/HA are included in Provincial Total. Refer to Appendix 1 for ICD-9 and ICD 10 codes used in each category.

Table 32

Chromosomal Anomalies by HSDA and Health Authority British Columbia, 1993 - 2002

Health Service Delivery Area (HSDA)		Total Births	Observed	Expected	Ratio	(p)	Rate
11	East Kootenay	7,561	23	28.9	0.79		3.04
12	Kootenay Boundary	7,221	29	27.6	1.05		4.02
13	Okanagan	28,406	106	108.7	0.98		3.73
14	Thompson Cariboo Shuswap	21,896	71	83.8	0.85		3.24
21	Fraser East	31,209	135	119.4	1.13		4.33
22	Fraser North	58,875	211	225.3	0.94		3.58
23	Fraser South	73,674	268	281.9	0.95		3.64
31	Richmond	16,485	65	63.1	1.03		3.94
32	Vancouver	59,536	272	227.8	1.19	+	4.57
33	North Shore/Coast Garibaldi	26,197	104	100.3	1.04		3.97
41	South Vancouver Island	30,339	137	116.1	1.18		4.52
42	Central Vancouver Island	22,944	111	87.8	1.26	+	4.84
43	North Vancouver Island	12,243	39	46.9	0.83		3.19
51	Northwest	12,456	34	47.7	0.71	-	2.73
52	Northern Interior	19,541	51	74.8	0.68	-	2.61
53	Northeast	9,536	21	36.5	0.58	-	2.20
Health Authority (HA)							
01	Interior HA	65,084	229	249.1	0.92		3.52
02	Fraser HA	163,758	614	626.6	0.98		3.75
03	Vancouver Coastal HA	102,218	441	391.2	1.13	+	4.31
04	Vancouver Island HA	65,526	287	250.7	1.14	+	4.38
05	Northern HA	41,533	106	158.9	0.67	-	2.55
	Provincial Total	438,248	1,677	1,677.0	1.00		3.83

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. Observed are counts of the specified congenital anomalies recorded in the HSR for births for the years shown. HSDA/HA assignment by usual address at time of birth. Diagnoses with unknown HSDA/HA are included in Provincial Total. Refer to Appendix 1 for ICD-9 and ICD 10 codes used in each category.

Section 3: Congenital Anomalies by Local Health Area

Local Health Area Highlights

Congenital Anomaly Cases

A total of 32,979 children born in 1993-2002 were reported to HSR with at least one diagnosis of a congenital anomaly. The provincial rate for congenital anomaly cases was 75.25 per 1,000 total births (live births plus stillbirths) in 1993-2002.

There were 18 LHAs with statistically significant high ratios between observed and expected cases with congenital anomalies; the highest ratios (with the number of cases, followed by the rates) were:

083 Central Coast	1.61	33	120.88
066 Lake Cowichan	1.42	63	106.96
040 New Westminster	1.33	658	100.09

There were 28 LHAs with statistically significant low ratios between observed and expected cases with congenital anomalies; the lowest ratios (with the number of cases, followed by the rates) were:

084 Vancouver Island West	0.60	21	45.26
027 Cariboo-Chilcotin	0.67	183	50.68
060 Peace River North	0.68	247	51.10

Congenital Anomaly Diagnoses

A total of 52,258 congenital anomaly diagnoses were reported to HSR in 1993-2002 births; the provincial rate for congenital anomaly diagnoses was 119.24 per 1,000 total births.

There were 17 LHAs with statistically significant high ratios between observed and expected reported congenital anomaly diagnoses; the highest ratios (with the number of diagnoses, followed by the rates) were:

083 Central Coast	1.72	56	205.13
092 Nisga'a	1.62	66	193.55
165 Vancouver - Midtown	1.36	1,863	162.42

There were 28 LHAs with statistically significant low ratios between observed and expected reported congenital anomaly diagnoses; the lowest ratios (with the number of diagnoses, followed by the rates) were:

004 Windermere	0.59	58	70.65
002 Cranbrook	0.61	186	72.77
060 Peace River North	0.64	370	76.54
006 Kootenay Lake	0.64	29	76.11

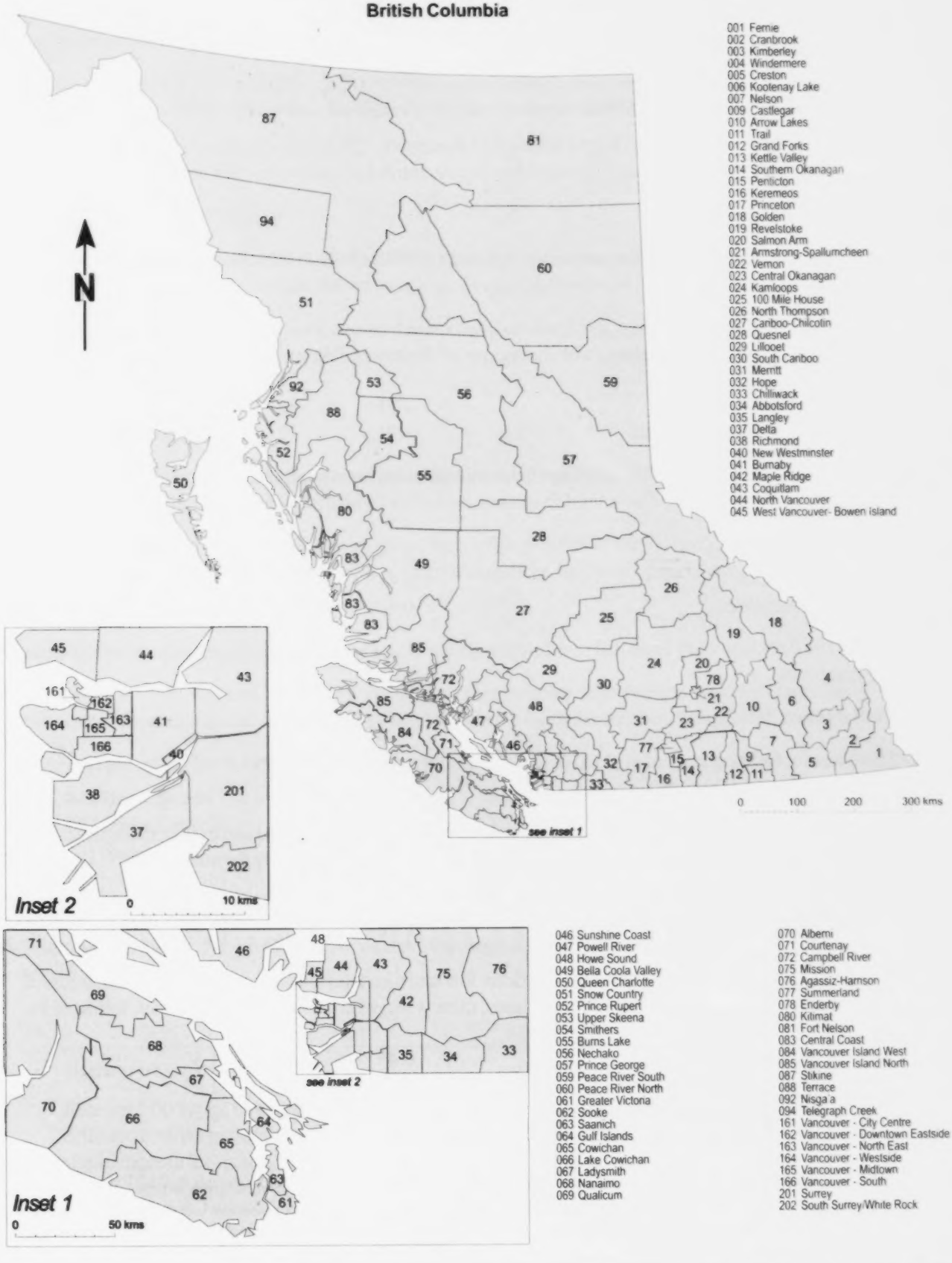
Congenital Nervous System Defects

There were 2,122 congenital nervous system defects reported to HSR in 1993-2002 births; the provincial rate was 4.84 per 1,000 total births.

There were nine LHAs with statistically significant high ratios between observed and expected diagnoses of congenital nervous system defects; the highest ratios (with the number of diagnoses, followed by the rates) were:

094 Telegraph Creek	8.75	5	42.37
051 Snow Country	7.37	5	35.71
032 Hope	3.12	13	15.12

Figure 14
Local Health Area
British Columbia



001 Fernie
002 Cranbrook
003 Kimberley
004 Windermere
005 Creston
006 Kootenay Lake
007 Nelson
009 Castlegar
010 Arrow Lakes
011 Trail
012 Grand Forks
013 Kettle Valley
014 Southern Okanagan
015 Penticton
016 Keremeos
017 Princeton
018 Golden
019 Revelstoke
020 Salmon Arm
021 Armstrong-Spallumcheen
022 Vernon
023 Central Okanagan
024 Kamloops
025 100 Mile House
026 North Thompson
027 Cariboo-Chilcotin
028 Quesnel
029 Lillooet
030 South Cariboo
031 Merritt
032 Hope
033 Chilliwack
034 Abbotsford
035 Langley
037 Delta
038 Richmond
040 New Westminster
041 Burnaby
042 Maple Ridge
043 Coquitlam
044 North Vancouver
045 West Vancouver- Bowen Island

046 Sunshine Coast
047 Powell River
048 Howe Sound
049 Bella Coola Valley
050 Queen Charlotte
051 Snow Country
052 Prince Rupert
053 Upper Skeena
054 Smithers
055 Burns Lake
056 Nechako
057 Prince George
059 Peace River South
060 Peace River North
061 Greater Victona
062 Sooke
063 Saanich
064 Gulf Islands
065 Cowichan
066 Lake Cowichan
067 Ladysmith
068 Nanaimo
069 Qualicum

070 Alberni
071 Courtenay
072 Campbell River
075 Mission
076 Agassiz-Harrison
077 Summerland
078 Enderby
080 Kitimat
081 Fort Nelson
083 Central Coast
084 Vancouver Island West
085 Vancouver Island North
087 Stikine
088 Terrace
092 Nisga a
094 Telegraph Creek
161 Vancouver - City Centre
162 Vancouver - Downtown Eastside
163 Vancouver - North East
164 Vancouver - Westside
165 Vancouver - Midtown
166 Vancouver - South
201 Surrey
202 South Surrey/White Rock

There were five LHAs with statistically significant low ratios between observed and expected diagnoses of congenital nervous system defects; the lowest ratios (with the number of diagnoses, followed by the rates) were:

060 Peace River North	0.30	7	1.45
072 Campbell River	0.48	10	2.33
161 Vancouver - City Centre	0.54	17	2.63

Five LHAs (003 Kimberley, 013 Kettle Valley, 016 Keremeos, 026 North Thompson, 053 Upper Skeena, and 087 Stikine,) had no reported congenital nervous system defects in the ten-year period.

Congenital Heart Anomalies

There were 6,661 congenital heart anomalies reported to HSR in 1993-2002 births; the provincial rate was 15.20 per 1,000 total births.

There were 12 LHAs with statistically significant high ratios between observed and expected diagnoses of congenital heart defects; the highest (with the number of diagnoses, followed by the rates) were:

026 North Thompson	2.35	20	35.78
009 Castlegar	1.75	32	26.67
014 Southern Okanagan	1.71	39	26.02

There were 12 LHAs with statistically significant low ratios between observed and expected diagnoses of congenital heart defects based on at least five cases; the lowest (with the number of diagnoses, followed by the rates) were:

002 Cranbrook	0.39	15	5.87
018 Golden	0.41	5	6.19
019 Revelstoke	0.42	6	6.46

Two LHAs (006 Kootenay Lake and 094 Telegraph Creek) had no reported congenital heart defects in the ten-year period.

Cleft Palate/Cleft Lip

There were 1,499 diagnoses of cleft palate and cleft lip reported to HSR in 1993-2002 births; the provincial rate was 3.42 per 1,000 total births.

There were 13 LHAs with statistically significant high ratios between observed and expected diagnoses of cleft palate and cleft lip; the highest (with the number of diagnoses, followed by the rates) were:

083 Central Coast	5.35	5	18.32
053 Upper Skeena	3.87	11	13.25
019 Revelstoke	3.15	10	10.76

There were four LHAs with statistically significant low ratios between observed and expected diagnoses of cleft palate and cleft lip based on at least five cases; these were (with the number of diagnoses, followed by the rates):

048 Howe Sound	0.45	6	1.52
166 Vancouver - South	0.50	24	1.73
164 Vancouver - Westside	0.66	23	2.26
034 Abbotsford	0.72	40	2.46

Fourteen LHAs (004 Windermere, 012 Grand Forks, 013 Kettle Valley, 016 Keremeos, 017 Princeton, 018 Golden, 029 Lillooet, 049 Bella Coola Valley, 050 Queen Charlotte, 051 Snow Country, 078 Enderby, 080 Kitimat, 087 Stikine, and 094 Telegraph Creek) had no reported diagnoses of cleft palate and cleft lip in the ten-year period.

Congenital Musculoskeletal Deformities

There were 12,090 diagnoses of congenital musculoskeletal deformities reported to HSR in 1993-2002 births; the provincial rate was 27.60 per 1,000 total births.

There were 12 LHAs with statistically significant high ratios between observed and expected diagnoses of congenital musculoskeletal deformities; the highest (with the number of diagnoses, followed by the rates) were:

040 New Westminster	1.55	282	42.90
043 Coquitlam	1.44	893	39.64
165 Vancouver - Midtown	1.37	433	37.75

There were 24 LHAs with statistically significant low ratios between observed and expected diagnoses of congenital musculoskeletal deformities based on at least five cases; the lowest (with the number of diagnoses, followed by the rates) were:

020 Salmon Arm	0.46	32	12.69
076 Agassiz-Harrison	0.48	11	13.24
029 Lillooet	0.51	9	14.13

Chromosomal Anomalies

There were 1,677 diagnoses of chromosomal anomalies reported to HSR in 1993-2002 births; the provincial rate was 3.83 per 1,000 total births.

There were seven LHAs with statistically significant high ratios between observed and expected diagnoses of chromosomal anomalies; the highest (with the number of diagnoses, followed by the rates) were:

068Nanaimo	2.01	69	7.68
165Vancouver - Midtown	1.96	86	7.50
045West Vancouver-Bowen Island	1.89	23	7.22

There were four LHAs with statistically significant low ratios between observed and expected diagnoses of chromosomal anomalies based on at least five cases; these were (with the number of diagnoses, followed by the rates):

088 Terrace	0.41	5	1.56
048 Howe Sound	0.46	7	1.78
057 Prince George	0.51	25	1.96
201 Surrey	0.83	143	3.19

Twelve LHAs (006 Kootenay Lake, 013 Kettle Valley, 016 Keremeos, 029 Lillooet, 030 South Cariboo, 051 Snow Country, 066 Lake Cowichan, 067 Ladysmith, 081 Fort Nelson, 084 Vancouver Island West, 087 Stikine, and 094 Telegraph Creek) had no reported diagnoses of chromosomal anomalies in the ten-year period.

Notes to tables in this section

Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance in less than five observations is indicated as (+) sig. High (-) sig. Low.
LHA assignment by address at time of birth, Unknown LHA are included in Provincial Total.

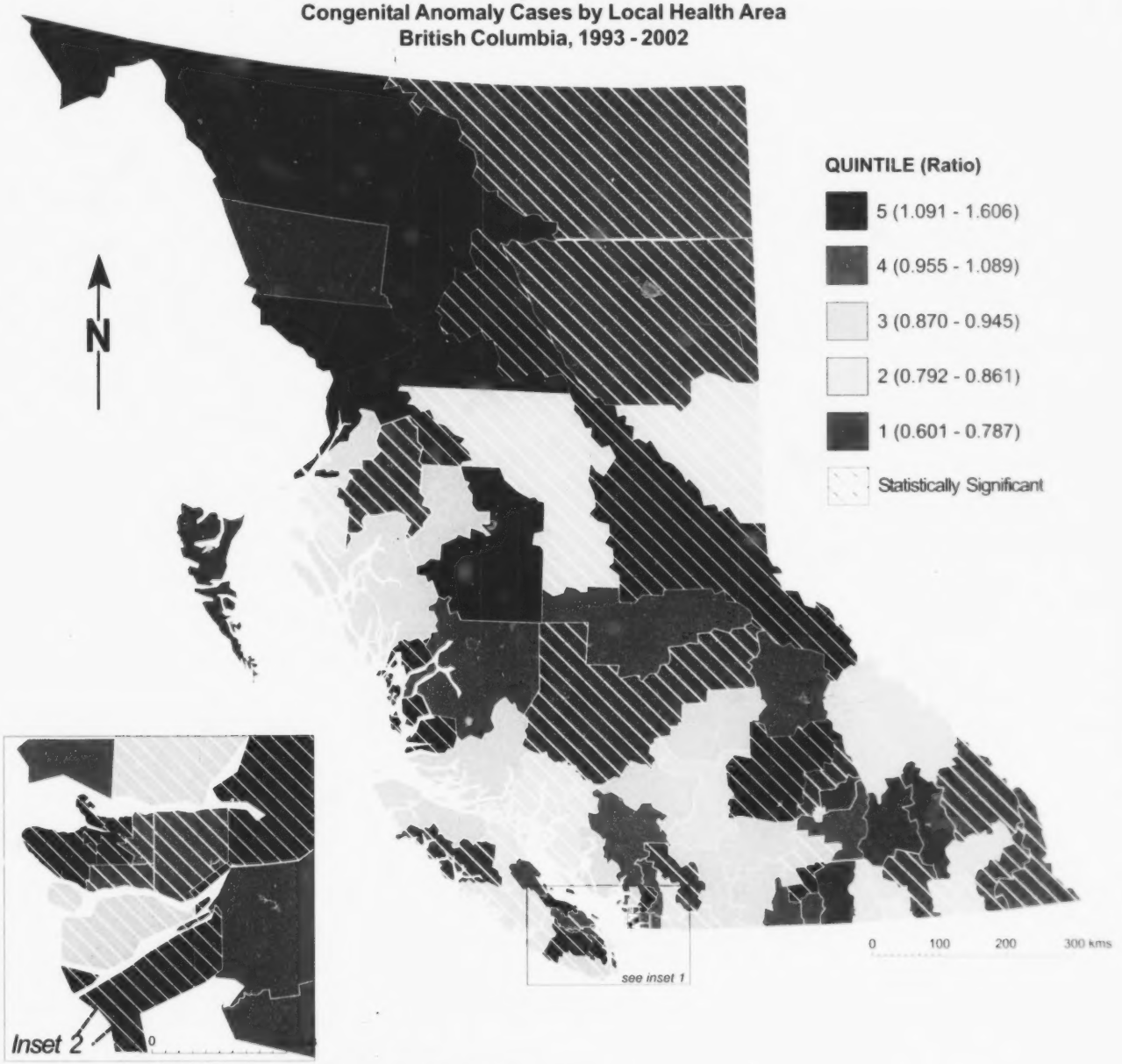
Table 33

Congenital Anomaly Cases by Local Health Area
British Columbia, 1993 – 2002

Local	Health Area	Total Births	Observed	Expected	Ratio	(p)	Rate
001	Fernie	1,409	74	106.0	0.70	-	52.52
002	Cranbrook	2,556	144	192.3	0.75	-	56.34
003	Kimberley	641	41	48.2	0.85		63.96
004	Windermere	821	43	61.8	0.70	-	52.38
005	Creston	1,326	79	99.8	0.79	-	59.58
006	Kootenay Lake	381	19	28.7	0.66		49.87
007	Nelson	2,338	125	175.9	0.71	-	53.46
009	Castlegar	1,200	74	90.3	0.82		61.67
010	Arrow Lakes	510	27	38.4	0.70		52.94
011	Trail	1,778	108	133.8	0.81	-	60.74
012	Grand Forks	693	42	52.1	0.81		60.61
013	Kettle Valley	321	19	24.2	0.79		59.19
014	Southern Okanagan	1,499	114	112.8	1.01		76.05
015	Penticton	3,539	320	266.3	1.20	+	90.42
016	Keremeos	464	34	34.9	0.97		73.28
017	Princeton	370	25	27.8	0.90		67.57
018	Golden	808	49	60.8	0.81		60.64
019	Revelstoke	929	60	69.9	0.86		64.59
020	Salmon Arm	2,522	135	189.8	0.71	-	53.53
021	Armstrong-Spallumcheen	865	54	65.1	0.83		62.43
022	Vernon	5,701	463	429.0	1.08		81.21
023	Central Okanagan	14,331	1,006	1,078.4	0.93	-	70.20
024	Kamloops	10,104	855	760.4	1.12	+	84.62
025	100 Mile House	1,390	96	104.6	0.92		69.06
026	North Thompson	559	45	42.1	1.07		80.50
027	Cariboo-Chilcotin	3,611	183	271.7	0.67	-	50.68
028	Quesnel	3,052	241	229.7	1.05		78.97
029	Lillooet	637	43	47.9	0.90		67.50
030	South Cariboo	773	48	58.2	0.83		62.10
031	Merritt	1,371	94	103.2	0.91		68.56
032	Hope	860	60	64.7	0.93		69.77
033	Chilliwack	8,667	585	652.2	0.90	-	67.50
034	Abbotsford	16,268	1,125	1,224.2	0.92	-	69.15
035	Langley	12,825	973	965.1	1.01		75.87
037	Delta	11,048	907	831.4	1.09	+	82.10
038	Richmond	16,485	1,126	1,240.5	0.91	-	68.31
040	New Westminster	6,574	658	494.7	1.33	+	100.09
041	Burnaby	20,517	1,643	1,543.9	1.06	+	80.08
042	Maple Ridge	9,254	723	696.4	1.04		78.13
043	Coquitlam	22,530	1,966	1,695.4	1.16	+	87.26
044	North Vancouver	14,034	922	1,056.1	0.87	-	65.70
045	West Vancouver-Bowen Is.	3,185	244	239.7	1.02		76.61
046	Sunshine Coast	2,373	160	178.6	0.90		67.42
047	Powell River	1,894	119	142.5	0.83	-	62.83
048	Howe Sound	3,937	285	296.3	0.96		72.39
049	Bella Coola Valley	501	36	37.7	0.95		71.86
050	Queen Charlotte	795	47	59.8	0.79		59.12
051	Snow Country	140	12	10.5	1.14		85.71
052	Prince Rupert	2,754	175	207.2	0.84	-	63.54
053	Upper Skeena	830	82	62.5	1.31	+	98.80
054	Smithers	2,729	194	205.4	0.94		71.09
055	Burns Lake	1,078	89	81.1	1.10		82.56
056	Nechako	2,671	173	201.0	0.86	-	64.77
057	Prince George	12,740	1,171	958.7	1.22	+	91.92
059	Peace River South	3,637	219	273.7	0.80	-	60.21
060	Peace River North	4,834	247	363.8	0.68	-	51.10
061	Greater Victoria	18,906	1,220	1,422.7	0.86	-	64.53
062	Sooke	6,050	396	455.3	0.87	-	65.45
063	Saanich	4,382	237	329.8	0.72	-	54.09
064	Gulf Islands	1,001	64	75.3	0.85		63.94
065	Cowichan	5,421	451	407.9	1.11	+	83.20
066	Lake Cowichan	589	63	44.3	1.42	+	106.96
067	Ladysmith	1,677	129	126.2	1.02		76.92
068	Nanaimo	8,981	736	675.8	1.09	+	81.95
069	Qualicum	2,687	226	202.2	1.12		84.11
070	Alberni	3,589	214	270.1	0.79	-	59.63
071	Courtenay	5,488	425	413.0	1.03		77.44
072	Campbell River	4,291	257	322.9	0.80	-	59.89
075	Mission	4,583	289	344.9	0.84	-	63.06
076	Agassiz-Harrison	831	46	62.5	0.74	-	55.36
077	Summerland	859	60	64.6	0.93		69.85
078	Enderby	778	46	58.6	0.79		59.13
080	Kitimat	1,446	98	108.8	0.90		67.77
081	Fort Nelson	1,065	60	80.1	0.75	-	56.34
083	Central Coast	273	33	20.5	1.61	+	120.88
084	Vancouver Island West	464	21	34.9	0.60	-	45.26
085	Vancouver Island North	2,000	139	150.5	0.92		69.50
087	Stikine	106	11	8.0	1.38		103.77
088	Terrace	3,197	179	240.6	0.74	-	55.99
092	Nisga'a	341	24	25.7	0.94		70.38
094	Telegraph Creek	118	6	8.9	0.68		50.85
161	Vancouver - City Centre	6,461	564	486.2	1.16	+	87.29
162	Vancouver - Downtown Eastside	5,299	489	398.8	1.23	+	92.28
163	Vancouver - North East	12,201	984	918.1	1.07	+	80.65
164	Vancouver - Westside	10,197	904	767.3	1.18	+	88.65
165	Vancouver - Midtown	11,470	1,143	863.1	1.32	+	99.65
166	Vancouver - South	13,908	1,123	1,046.6	1.07	+	80.75
201	Surrey	44,888	3,374	3,377.9	1.00		75.17
202	South Surrey/White Rock	4,913	367	369.7	0.99		74.70
	Provincial Total	438,248	32,979	32,979.0	1.00		75.25

Notes for table can be found at the end of the Local Health Area Highlights.

Figure 15
Congenital Anomaly Cases by Local Health Area
British Columbia, 1993 - 2002



Note: Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

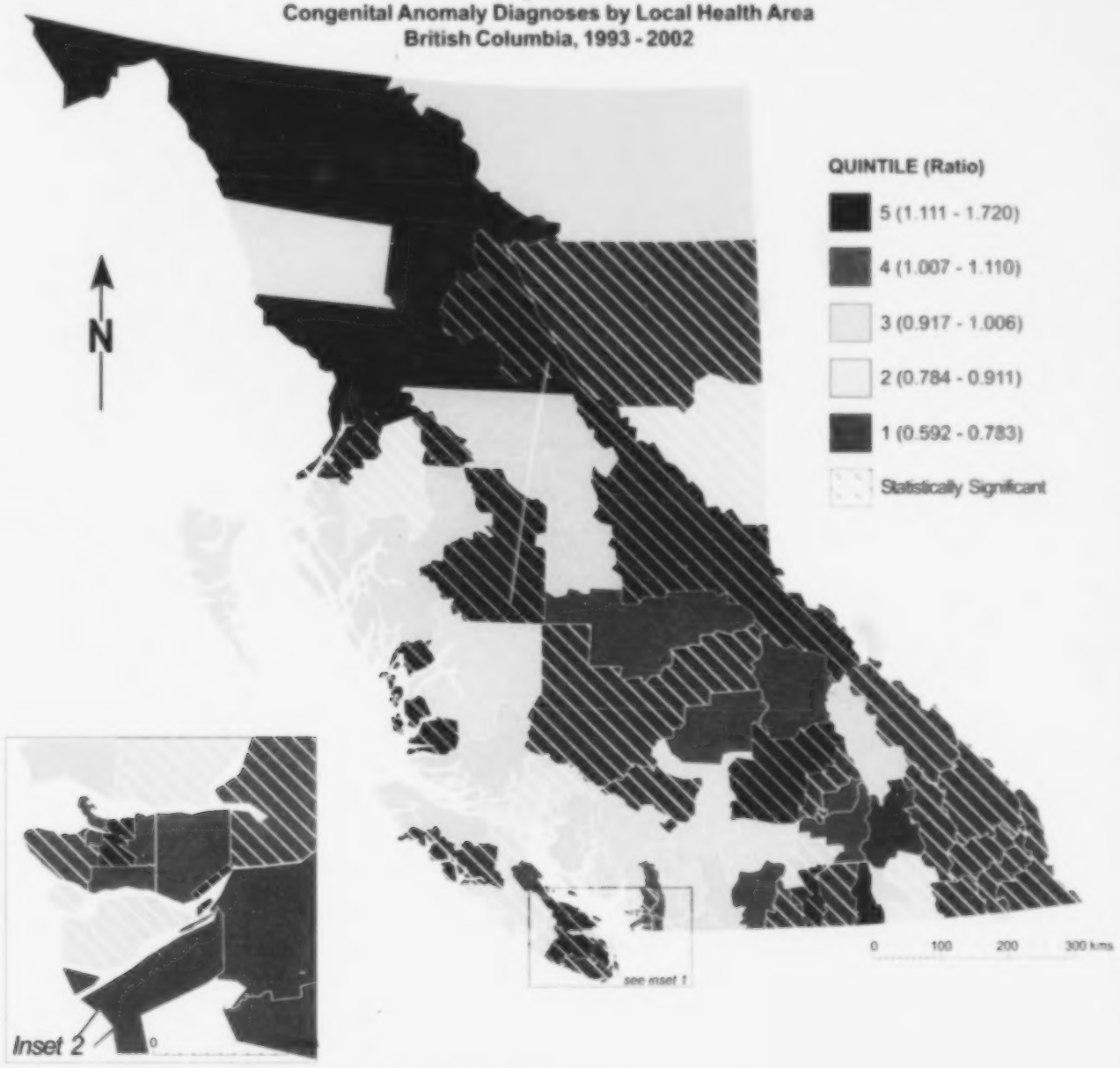
Table 34

Congenital Anomaly Diagnoses by Local Health Area
British Columbia, 1993 – 2002

Local	Health Area	Total Births	Observed	Expected	Ratio	(p)	Rate
001	Fernie	1,409	115	168.0	0.68	-	81.62
002	Cranbrook	2,556	186	304.8	0.61	-	72.77
003	Kimberley	641	58	76.4	0.76	-	90.48
004	Windermere	821	58	97.9	0.59	-	70.65
005	Creston	1,326	120	158.1	0.76	-	90.50
006	Kootenay Lake	381	29	45.4	0.64	-	76.11
007	Nelson	2,338	219	278.8	0.79	-	93.67
009	Castlegar	1,200	144	143.1	1.01		120.00
010	Arrow Lakes	510	46	60.8	0.76		90.20
011	Trail	1,778	168	212.0	0.79	-	94.49
012	Grand Forks	693	93	82.6	1.13		134.20
013	Kettle Valley	321	25	38.3	0.65	-	77.88
014	Southern Okanagan	1,499	213	178.8	1.19	+	142.10
015	Penticton	3,539	533	422.0	1.26	+	150.61
016	Keremeos	464	39	55.3	0.70	-	84.05
017	Princeton	370	47	44.1	1.07		127.03
018	Golden	808	74	96.4	0.77	-	91.58
019	Revelstoke	929	103	110.8	0.93		110.87
020	Salmon Arm	2,522	216	300.7	0.72	-	85.65
021	Armstrong-Spallumcheen	865	75	103.2	0.73	-	86.70
022	Vernon	5,701	727	679.8	1.07		127.52
023	Central Okanagan	14,331	1,625	1,708.9	0.95	-	113.39
024	Kamloops	10,104	1,376	1,204.8	1.14	+	136.18
025	100 Mile House	1,390	184	165.8	1.11		132.37
026	North Thompson	559	70	66.7	1.05		125.22
027	Cariboo-Chilcotin	3,611	331	430.6	0.77	-	91.66
028	Quesnel	3,052	394	363.9	1.08		129.10
029	Lillooet	637	58	76.0	0.76	-	91.05
030	South Cariboo	773	74	92.2	0.80		95.73
031	Merritt	1,371	149	163.5	0.91		108.68
032	Hope	860	97	102.6	0.95		112.79
033	Chilliwack	8,667	1,010	1,033.5	0.98		116.53
034	Abbotsford	16,268	1,806	1,939.8	0.93	-	111.02
035	Langley	12,825	1,540	1,529.3	1.01		120.08
037	Delta	11,048	1,333	1,317.4	1.01		120.66
038	Richmond	16,485	1,755	1,965.7	0.89	-	106.46
040	New Westminster	6,574	975	783.9	1.24	+	148.31
041	Burnaby	20,517	2,497	2,446.5	1.02		121.70
042	Maple Ridge	9,254	1,156	1,103.5	1.05		124.92
043	Coquitlam	22,530	2,933	2,686.5	1.09	+	130.18
044	North Vancouver	14,034	1,473	1,673.5	0.88	-	104.96
045	West Vancouver-Bowen Is.	3,185	382	379.8	1.01		119.94
046	Sunshine Coast	2,373	251	283.0	0.89		105.77
047	Powell River	1,894	215	225.8	0.95		113.52
048	Howe Sound	3,937	427	469.5	0.91		108.46
049	Bella Coola Valley	501	48	59.7	0.80		95.81
050	Queen Charlotte	795	86	94.8	0.91		108.18
051	Snow Country	140	21	16.7	1.26		150.00
052	Prince Rupert	2,754	330	328.4	1.00		119.83
053	Upper Skeena	830	125	99.0	1.26	+	150.60
054	Smithers	2,729	306	325.4	0.94		112.13
055	Burns Lake	1,078	159	128.5	1.24	+	147.50
056	Nechako	2,671	313	318.5	0.98		117.19
057	Prince George	12,740	1,792	1,519.2	1.18	+	140.66
059	Peace River South	3,637	344	433.7	0.79	-	94.58
060	Peace River North	4,834	370	576.4	0.64	-	76.54
061	Greater Victoria	18,906	1,991	2,254.4	0.88	-	105.31
062	Sooke	6,050	563	721.4	0.78	-	93.06
063	Saanich	4,382	409	522.5	0.78	-	93.34
064	Gulf Islands	1,001	117	119.4	0.98		116.88
065	Cowichan	5,421	718	646.4	1.11	+	132.45
066	Lake Cowichan	589	92	70.2	1.31	+	156.20
067	Ladysmith	1,677	187	200.0	0.94		111.51
068	Nanaimo	8,981	1,254	1,070.9	1.17	+	139.63
069	Qualicum	2,687	360	320.4	1.12	+	133.98
070	Alberni	3,589	340	428.0	0.79	-	94.73
071	Courtenay	5,488	681	654.4	1.04		124.09
072	Campbell River	4,291	432	511.7	0.84	-	100.68
075	Mission	4,583	501	546.5	0.92		109.32
076	Agassiz-Harrison	831	83	99.1	0.84		99.88
077	Summerland	859	89	102.4	0.87		103.61
078	Enderby	778	99	92.8	1.07		127.25
080	Kitimat	1,446	163	172.4	0.95		112.73
081	Fort Nelson	1,065	117	127.0	0.92		109.86
083	Central Coast	273	56	32.5	1.72	+	205.13
084	Vancouver Island West	464	40	55.3	0.72	-	86.21
085	Vancouver Island North	2,000	239	238.5	1.00		119.50
087	Stikine	106	15	12.6	1.19		141.51
088	Terrace	3,197	299	381.2	0.78	-	93.53
092	Nisga'a	341	66	40.7	1.62	+	193.55
094	Telegraph Creek	118	12	14.1	0.85		101.70
161	Vancouver - City Centre	6,461	798	770.4	1.04		123.51
162	Vancouver - Downtown Eastside	5,299	773	631.9	1.22	+	145.88
163	Vancouver - North East	12,201	1,529	1,454.9	1.05		125.32
164	Vancouver - Westside	10,197	1,334	1,215.9	1.10	+	130.82
165	Vancouver - Midtown	11,470	1,863	1,367.7	1.36	+	162.42
166	Vancouver - South	13,908	1,709	1,658.4	1.03		122.88
201	Surrey	44,888	5,425	5,352.6	1.01		120.86
202	South Surrey/White Rock	4,913	611	585.8	1.04		124.36
	Provincial Total	438,248	52,258	52,258.0	1.00		119.24

Notes for table can be found at the end of the Local Health Area Highlights.

Figure 16
Congenital Anomaly Diagnoses by Local Health Area
British Columbia, 1993 - 2002



Note: Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

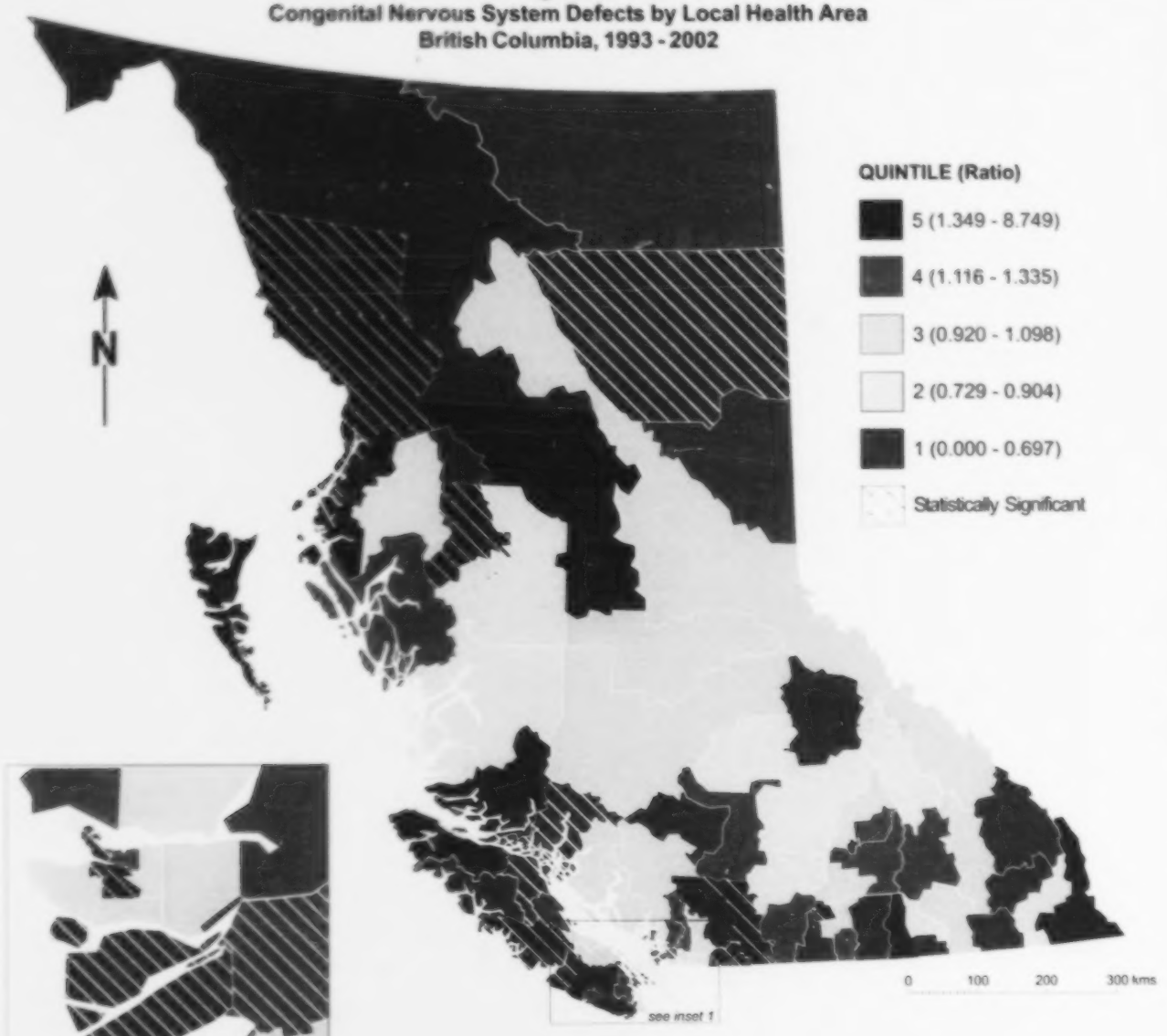
Table 35

Congenital Nervous System Defects by Local Health Area
British Columbia, 1993 – 2002

Local Health Area		Total Births	Observed	Expected	Ratio	(p)	Rate
001	Fernie	1,409	10	6.8	1.47		7.10
002	Cranbrook	2,556	10	12.4	0.81		3.91
003	Kimberley	641	-	3.1	-		-
004	Windermere	821	2	4.0	0.50		2.44
005	Creston	1,326	3	6.4	0.47		2.26
006	Kootenay Lake	381	2	1.9	1.08		5.25
007	Nelson	2,338	11	11.3	0.97		4.70
008	Castlegar	1,200	5	5.8	0.86		4.17
010	Arrow Lakes	510	3	2.5	1.21		5.88
011	Trail	1,778	6	8.6	0.70		3.37
012	Grand Forks	693	5	3.4	1.49		7.21
013	Kettle Valley	321	-	1.6	-		-
014	Southern Okanagan	1,499	9	7.3	1.24		6.00
015	Penticton	3,539	17	17.1	0.99		4.80
016	Keremeos	464	-	2.3	-		-
017	Princeton	370	2	1.8	1.12		5.41
018	Golden	808	4	3.9	1.02		4.95
019	Revelstoke	929	4	4.5	0.89		4.31
020	Salmon Arm	2,522	13	12.2	1.06		5.15
021	Armstrong-Spallumcheen	865	2	4.2	0.48		2.31
022	Vernon	5,701	32	27.6	1.16		5.61
023	Central Okanagan	14,331	73	69.4	1.05		5.09
024	Kamloops	10,104	43	48.9	0.88		4.26
025	100 Mile House	1,390	6	6.7	0.89		4.32
026	North Thompson	559	-	2.7	-		-
027	Cariboo-Chilcotin	3,611	18	17.5	1.03		4.98
028	Quesnel	3,052	15	14.8	1.01		4.91
029	Lillooet	637	1	3.1	0.32		1.57
030	South Cariboo	773	5	3.7	1.34		6.47
031	Merritt	1,371	6	6.6	0.90		4.38
032	Hope	860	13	4.2	3.12	+	15.12
033	Chilliwack	8,667	60	42.0	1.43	+	6.92
034	Abbotsford	16,268	68	78.8	0.86		4.18
035	Langley	12,825	50	62.1	0.80		3.90
037	Delta	11,048	33	53.5	0.62	-	2.99
038	Richmond	16,485	51	79.8	0.64	-	3.09
040	New Westminster	6,574	37	31.8	1.16		5.63
041	Burnaby	20,517	97	99.4	0.98		4.73
042	Maple Ridge	9,254	54	44.8	1.20		5.84
043	Coquitlam	22,530	125	109.1	1.15		5.55
044	North Vancouver	14,034	52	68.0	0.77		3.71
045	West Vancouver-Bowen Is.	3,185	18	15.4	1.17		5.65
046	Sunshine Coast	2,373	11	11.5	0.96		4.64
047	Powell River	1,894	10	9.2	1.09		5.28
048	Howe Sound	3,937	19	19.1	1.00		4.83
049	Bella Coola Valley	501	2	2.4	0.82		3.99
050	Queen Charlotte	795	7	3.9	1.82		8.80
051	Snow Country	140	5	0.7	7.37	+	35.71
052	Prince Rupert	2,754	18	13.3	1.35		6.54
053	Upper Skeena	830	-	4.0	-		-
054	Smithers	2,729	23	13.2	1.74	+	8.43
055	Burns Lake	1,078	4	5.2	0.77		3.71
056	Nechako	2,671	19	12.9	1.47		7.11
057	Prince George	12,740	61	61.7	0.99		4.79
059	Peace River South	3,637	21	17.6	1.19		5.77
060	Peace River North	4,834	7	23.4	0.30	-	1.45
061	Greater Victoria	18,906	97	91.6	1.06		5.13
062	Sooke	6,050	19	29.3	0.65		3.14
063	Saanich	4,382	16	21.2	0.75		3.65
064	Gulf Islands	1,001	6	4.9	1.24		5.99
065	Cowichan	5,421	31	26.3	1.18		5.72
066	Lake Cowichan	589	4	2.9	1.40		6.79
067	Ladysmith	1,677	12	8.1	1.48		7.16
068	Nanaimo	8,981	40	43.5	0.92		4.45
069	Qualicum	2,687	11	13.0	0.85		4.09
070	Alberni	3,589	27	17.4	1.55	+	7.52
071	Courtenay	5,488	30	26.6	1.13		5.47
072	Campbell River	4,291	10	20.8	0.48	-	2.33
075	Mission	4,583	18	22.2	0.81		3.93
076	Agassiz-Harrison	831	7	4.0	1.74		8.42
077	Summerland	859	10	4.2	2.40	+	11.64
078	Enderby	778	5	3.8	1.33		6.43
080	Kitimat	1,446	8	7.0	1.14		5.53
081	Fort Nelson	1,065	6	5.2	1.16		5.63
083	Central Coast	273	1	1.3	0.76		3.66
084	Vancouver Island West	464	1	2.3	0.44		2.16
085	Vancouver Island North	2,000	14	9.7	1.45		7.00
087	Stikine	106	-	0.5	-		-
088	Terrace	3,197	17	15.5	1.10		5.32
092	Nisga'a	341	4	1.7	2.42		11.73
094	Telegraph Creek	118	5	0.6	8.75	+	42.37
161	Vancouver - City Centre	6,461	17	31.3	0.54	-	2.63
162	Vancouver - Downtown Eastside	5,299	31	25.7	1.21		5.85
163	Vancouver - North East	12,201	46	59.1	0.78		3.77
164	Vancouver - Westside	10,197	36	49.4	0.73		3.53
165	Vancouver - Midtown	11,470	87	55.6	1.57	+	7.59
166	Vancouver - South	13,908	59	67.4	0.88		4.24
201	Surrey	44,888	249	217.4	1.15	+	5.55
202	South Surrey/White Rock	4,913	26	23.8	1.09		5.29
	Provincial Total	438,119	2,122	2,122.0	1.00		4.84

Notes for table can be found at the end of the Local Health Area Highlights.

Figure 17
Congenital Nervous System Defects by Local Health Area
British Columbia, 1993 - 2002



Note: Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

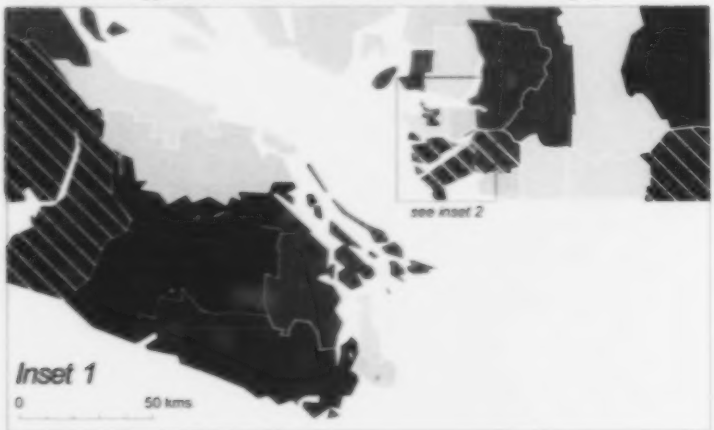


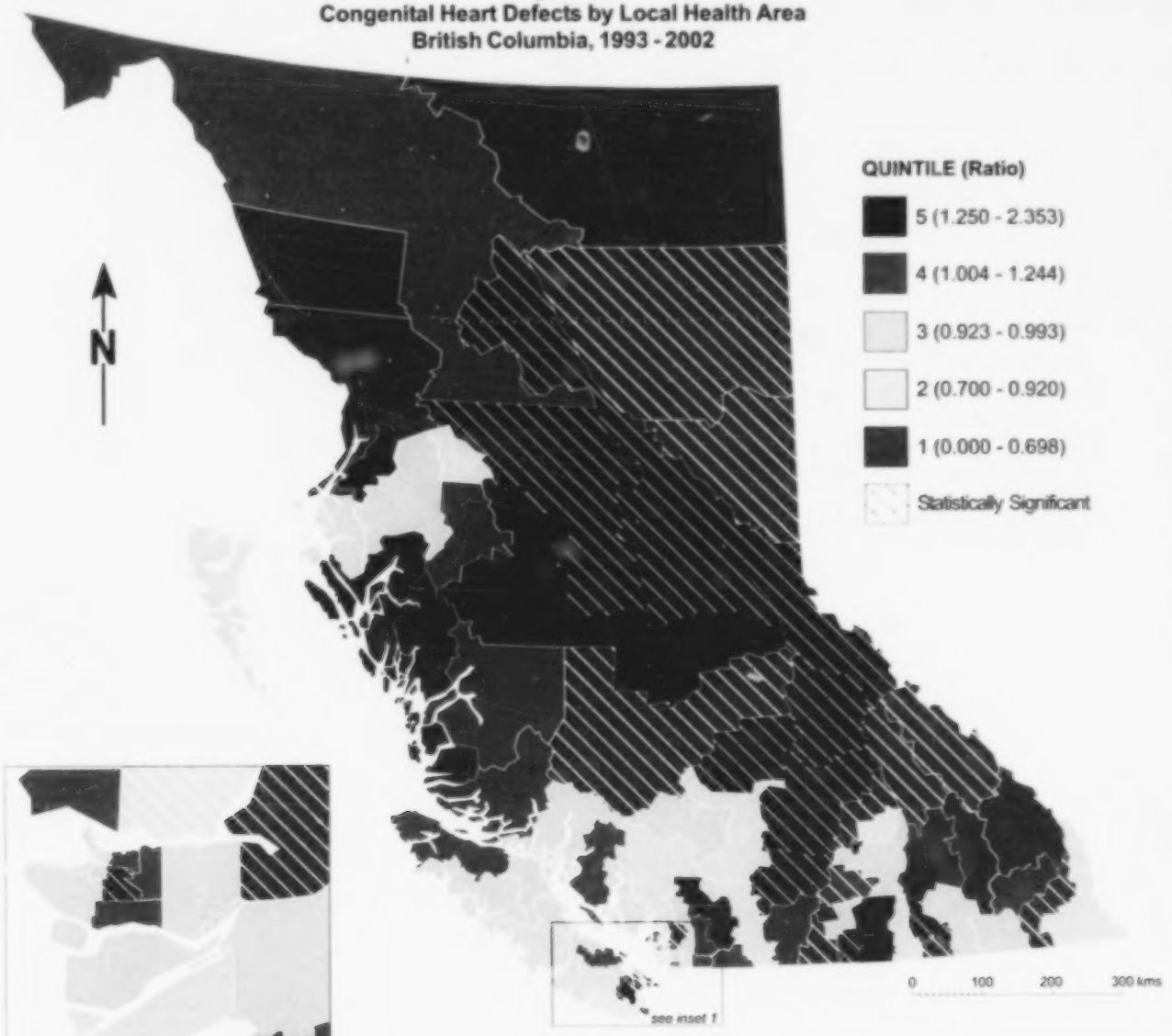
Table 36

Congenital Heart Defects by Local Health Area
British Columbia, 1993 – 2002

Local Health Area		Total Births	Observed	Expected	Ratio	(p)	Rate
001	Fernie	1,409	15	21.4	0.70		10.65
002	Cranbrook	2,556	15	38.9	0.39	-	5.87
003	Kimberley	641	10	9.8	1.03		15.60
004	Windermere	821	6	12.5	0.48		7.31
005	Creston	1,326	19	20.2	0.94		14.33
006	Kootenay Lake	381	-	5.8	-		-
007	Nelson	2,338	34	35.6	0.96		14.54
009	Castlegar	1,200	32	18.2	1.75	+	26.67
010	Arrow Lakes	510	3	7.8	0.39		5.88
011	Trail	1,778	15	27.0	0.55	-	8.44
012	Grand Forks	693	8	10.5	0.76		11.54
013	Kettle Valley	321	7	4.9	1.43		21.81
014	Southern Okanagan	1,499	39	22.8	1.71	+	26.02
015	Penticton	3,539	53	53.8	0.99		14.98
016	Keremeos	464	1	7.0	0.14	(-)	2.16
017	Princeton	370	7	5.6	1.24		18.92
018	Golden	808	5	12.3	0.41	-	6.19
019	Revelstoke	929	6	14.1	0.42	-	6.46
020	Salmon Arm	2,522	25	38.3	0.65	-	9.91
021	Armstrong-Spallumcheen	865	9	13.2	0.68		10.40
022	Vernon	5,701	85	86.7	0.98		14.91
023	Central Okanagan	14,331	254	217.9	1.17	+	17.72
024	Kamloops	10,104	239	153.6	1.56	+	23.65
025	100 Mile House	1,390	34	21.1	1.61	+	24.46
026	North Thompson	559	20	8.5	2.35	+	35.78
027	Cariboo-Chilcotin	3,611	33	54.9	0.60	-	9.14
028	Quesnel	3,052	58	46.4	1.25		19.00
029	Lillooet	637	9	9.7	0.93		14.13
030	South Cariboo	773	10	11.8	0.85		12.94
031	Merritt	1,371	31	20.8	1.49	+	22.61
032	Hope	860	10	13.1	0.76		11.63
033	Chilliwack	8,667	150	131.8	1.14		17.31
034	Abbotsford	16,268	253	247.3	1.02		15.55
035	Langley	12,825	175	195.0	0.90		13.65
037	Delta	11,048	154	168.0	0.92		13.94
038	Richmond	16,485	245	250.6	0.98		14.86
040	New Westminster	6,574	92	100.0	0.92		13.99
041	Burnaby	20,517	288	311.9	0.92		14.04
042	Maple Ridge	9,254	139	140.7	0.99		15.02
043	Coquitlam	22,530	239	342.5	0.70	-	10.61
044	North Vancouver	14,034	166	213.4	0.78	-	11.83
045	West Vancouver-Bowen Is.	3,185	55	48.4	1.14		17.27
046	Sunshine Coast	2,373	32	36.1	0.89		13.48
047	Powell River	1,894	31	28.8	1.08		16.37
048	Howe Sound	3,937	54	59.9	0.90		13.72
049	Bella Coola Valley	501	9	7.6	1.18		17.96
050	Queen Charlotte	795	10	12.1	0.83		12.58
051	Snow Country	140	1	2.1	0.47		7.14
052	Prince Rupert	2,754	39	41.9	0.93		14.16
053	Upper Skeena	830	9	12.6	0.71		10.84
054	Smithers	2,729	48	41.5	1.16		17.59
055	Burns Lake	1,078	24	16.4	1.46		22.26
056	Nechako	2,671	57	40.6	1.40	+	21.34
057	Prince George	12,740	261	193.7	1.35	+	20.49
059	Peace River South	3,637	37	55.3	0.67	-	10.17
060	Peace River North	4,834	39	73.5	0.53	-	8.07
061	Greater Victoria	18,906	318	287.4	1.11		16.82
062	Sooke	6,050	71	92.0	0.77	-	11.74
063	Saanich	4,382	50	66.6	0.75	-	11.41
064	Gulf Islands	1,001	25	15.2	1.64	+	24.98
065	Cowichan	5,421	106	82.4	1.29	+	19.55
066	Lake Cowichan	589	8	9.0	0.89		13.58
067	Ladysmith	1,677	24	25.5	0.94		14.31
068	Nanaimo	8,981	153	136.5	1.12		17.04
069	Qualicum	2,687	39	40.9	0.95		14.51
070	Alberni	3,589	41	54.6	0.75		11.42
071	Courtenay	5,488	81	83.4	0.97		14.76
072	Campbell River	4,291	61	65.2	0.94		14.22
075	Mission	4,583	72	69.7	1.03		15.71
076	Agassiz-Harrison	831	17	12.6	1.35		20.46
077	Summerland	859	6	13.1	0.46		6.98
078	Enderby	778	9	11.8	0.76		11.57
080	Kitimat	1,446	30	22.0	1.36		20.75
081	Fort Nelson	1,065	11	16.2	0.68		10.33
083	Central Coast	273	6	4.2	1.45		21.98
084	Vancouver Island West	464	7	7.0	0.99		15.09
085	Vancouver Island North	2,000	35	30.4	1.15		17.50
087	Stikine	106	2	1.6	1.24		18.87
088	Terrace	3,197	46	48.6	0.95		14.39
092	Nisga'a	341	7	5.2	1.35		20.53
094	Telegraph Creek	118	-	1.8	-		-
161	Vancouver - City Centre	6,461	89	98.2	0.91		13.78
162	Vancouver - Downtown Eastside	5,299	97	80.6	1.20		18.31
163	Vancouver - North East	12,201	189	185.5	1.02		15.49
164	Vancouver - Westside	10,197	154	155.0	0.99		15.10
165	Vancouver - Midtown	11,470	230	174.4	1.32	+	20.05
166	Vancouver - South	13,908	236	211.5	1.12		16.97
201	Surrey	44,888	667	682.5	0.98		14.86
202	South Surrey/White Rock	4,913	75	74.7	1.00		15.27
	Provincial Total	438,119	6,661	6,661.0	1.00		15.20

Notes for table can be found at the end of the Local Health Area Highlights.

Figure 18
Congenital Heart Defects by Local Health Area
British Columbia, 1993 - 2002



Note: Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

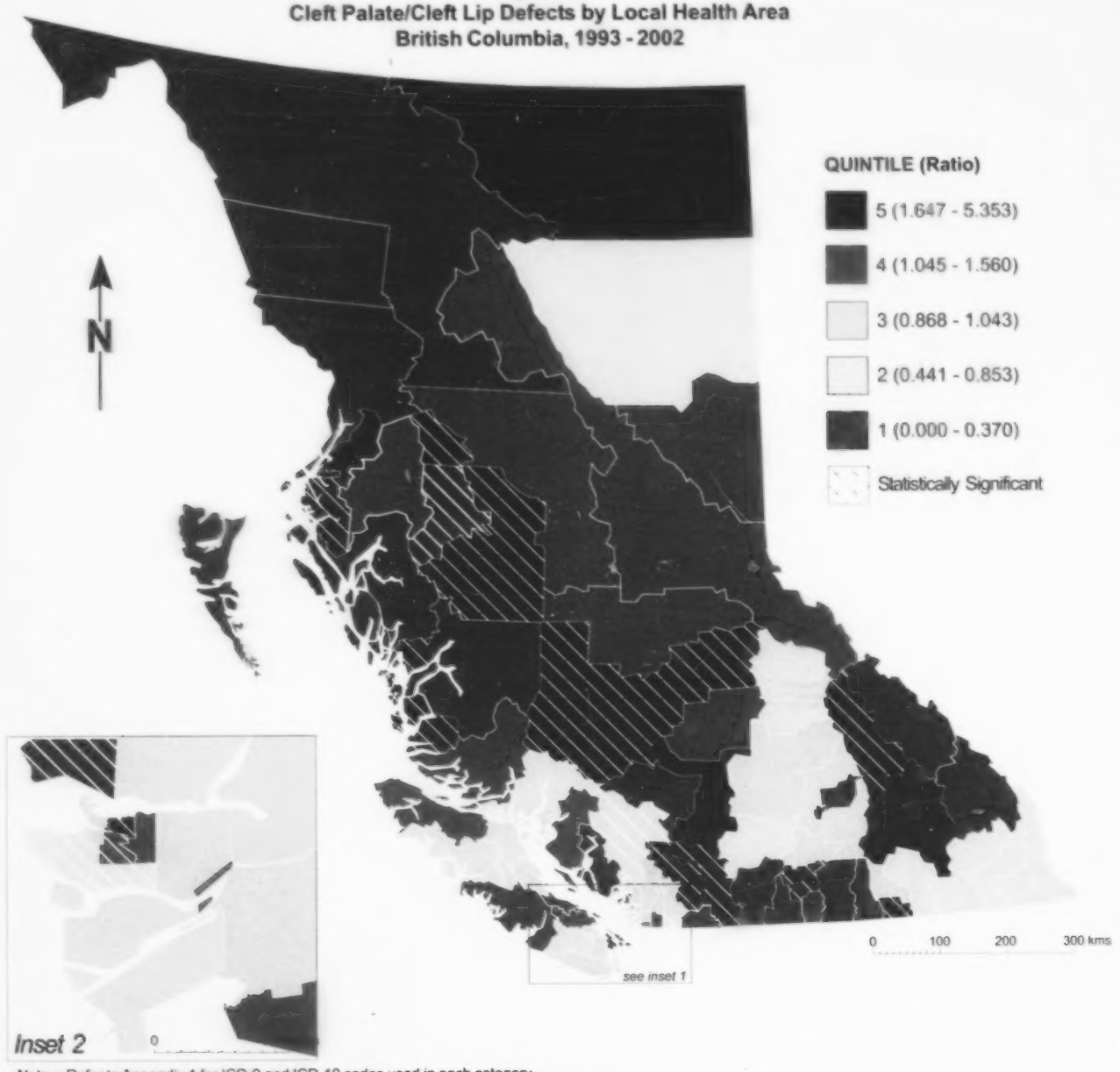
Table 37

Cleft Palate/Cleft Lip Defects by Local Health Area
British Columbia, 1993 – 2002

Local Health Area		Total Births	Observed	Expected	Ratio	(p)	Rate
001	Fernie	1,409	3	4.8	0.62		2.13
002	Cranbrook	2,556	6	8.8	0.69		2.35
003	Kimberley	641	1	2.2	0.46		1.56
004	Windermere	821	-	2.8	-		-
005	Creston	1,326	2	4.5	0.44		1.51
006	Kootenay Lake	381	3	1.3	2.30		7.87
007	Nelson	2,338	5	8.0	0.63		2.14
009	Castlegar	1,200	4	4.1	0.97		3.33
010	Arrow Lakes	510	3	1.7	1.72		5.88
011	Trail	1,778	13	6.1	2.14	+	7.31
012	Grand Forks	693	-	2.4	-		-
013	Kettle Valley	321	-	1.1	-		-
014	Southern Okanagan	1,499	8	5.1	1.56		5.34
015	Penticton	3,539	26	12.1	2.15	+	7.35
016	Keremeos	464	-	1.6	-		-
017	Princeton	370	-	1.3	-		-
018	Golden	808	-	2.8	-		-
019	Revelstoke	929	10	3.2	3.15	+	10.76
020	Salmon Arm	2,522	9	8.6	1.04		3.57
021	Armstrong-Spallumcheen	865	1	3.0	0.34		1.16
022	Vernon	5,701	19	19.5	0.97		3.33
023	Central Okanagan	14,331	47	49.0	0.96		3.28
024	Kamloops	10,104	30	34.6	0.87		2.97
025	100 Mile House	1,390	5	4.8	1.05		3.60
026	North Thompson	559	1	1.9	0.52		1.79
027	Cariboo-Chilcotin	3,611	29	12.4	2.35	+	8.03
028	Quesnel	3,052	14	10.4	1.34		4.59
029	Lillooet	637	-	2.2	-		-
030	South Cariboo	773	5	2.6	1.89		6.47
031	Merritt	1,371	4	4.7	0.85		2.92
032	Hope	860	7	2.9	2.38	+	8.14
033	Chilliwack	8,667	32	29.7	1.08		3.69
034	Abbotsford	16,268	40	55.7	0.72	-	2.46
035	Langley	12,825	47	43.9	1.07		3.66
037	Delta	11,046	30	37.8	0.79		2.72
038	Richmond	16,485	43	56.4	0.76		2.61
040	New Westminster	6,574	26	22.5	1.16		3.96
041	Burnaby	20,517	65	70.2	0.93		3.17
042	Maple Ridge	9,254	32	31.7	1.01		3.46
043	Coquitlam	22,530	80	77.1	1.04		3.55
044	North Vancouver	14,034	43	48.0	0.90		3.06
045	West Vancouver-Bowen Is.	3,185	3	10.9	0.28	(-)	0.94
046	Sunshine Coast	2,373	3	8.1	0.37		1.26
047	Powell River	1,894	10	6.5	1.54		5.28
048	Howe Sound	3,937	6	13.5	0.45	-	1.52
049	Bella Coola Valley	501	-	1.7	-		-
050	Queen Charlotte	795	-	2.7	-		-
051	Snow Country	140	-	0.5	-		-
052	Prince Rupert	2,754	20	9.4	2.12	+	7.26
053	Upper Skeena	830	11	2.8	3.87	+	13.25
054	Smithers	2,729	2	9.3	0.21	(-)	0.73
055	Burns Lake	1,078	8	3.7	2.17	+	7.42
056	Nechako	2,671	14	9.1	1.53		5.24
057	Prince George	12,740	56	43.6	1.28		4.40
059	Peace River South	3,637	13	12.4	1.04		3.57
060	Peace River North	4,834	9	16.5	0.54		1.86
061	Greater Victoria	18,906	57	64.7	0.88		3.01
062	Sooke	6,050	20	20.7	0.97		3.31
063	Saanich	4,382	14	15.0	0.93		3.19
064	Gulf Islands	1,001	7	3.4	2.04		6.99
065	Cowichan	5,421	18	18.6	0.97		3.32
066	Lake Cowichan	589	1	2.0	0.50		1.70
067	Ladysmith	1,677	5	5.7	0.87		2.98
068	Nanaimo	8,981	37	30.7	1.20		4.12
069	Qualicum	2,687	11	9.2	1.20		4.09
070	Alberni	3,589	17	12.3	1.38		4.74
071	Courtenay	5,488	15	18.8	0.80		2.73
072	Campbell River	4,291	11	14.7	0.75		2.56
075	Mission	4,583	15	15.7	0.96		3.27
076	Agassiz-Harrison	831	7	2.8	2.46	+	8.42
077	Summerland	859	8	2.9	2.72	+	9.31
078	Enderby	778	-	2.7	-		-
080	Kitimat	1,446	-	5.0	-		-
081	Fort Nelson	1,065	6	3.6	1.65		5.63
083	Central Coast	273	5	0.9	5.35	+	18.32
084	Vancouver Island West	464	1	1.6	0.63		2.16
085	Vancouver Island North	2,000	8	6.8	1.17		4.00
087	Stikine	106	-	0.4	-		-
088	Terrace	3,197	14	10.9	1.28		4.38
092	Nisga'a	341	2	1.2	1.71		5.87
094	Telegraph Creek	118	-	0.4	-		-
161	Vancouver - City Centre	6,461	20	22.1	0.90		3.10
162	Vancouver - Downtown Eastside	5,299	31	18.1	1.71	+	5.85
163	Vancouver - North East	12,201	48	41.8	1.15		3.93
164	Vancouver - Westside	10,197	23	34.9	0.66	-	2.26
165	Vancouver - Midtown	11,470	52	39.2	1.33	+	4.53
166	Vancouver - South	13,908	24	47.6	0.50	-	1.73
201	Surrey	44,888	156	153.6	1.02		3.48
202	South Surrey/White Rock	4,913	18	16.8	1.07		3.66
	Provincial Total	438,119	1,499	1,499.0	1.00		3.42

Notes for table can be found at the end of the Local Health Area Highlights.

Figure 19
Cleft Palate/Cleft Lip Defects by Local Health Area
British Columbia, 1993 - 2002



Note: Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Note: Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

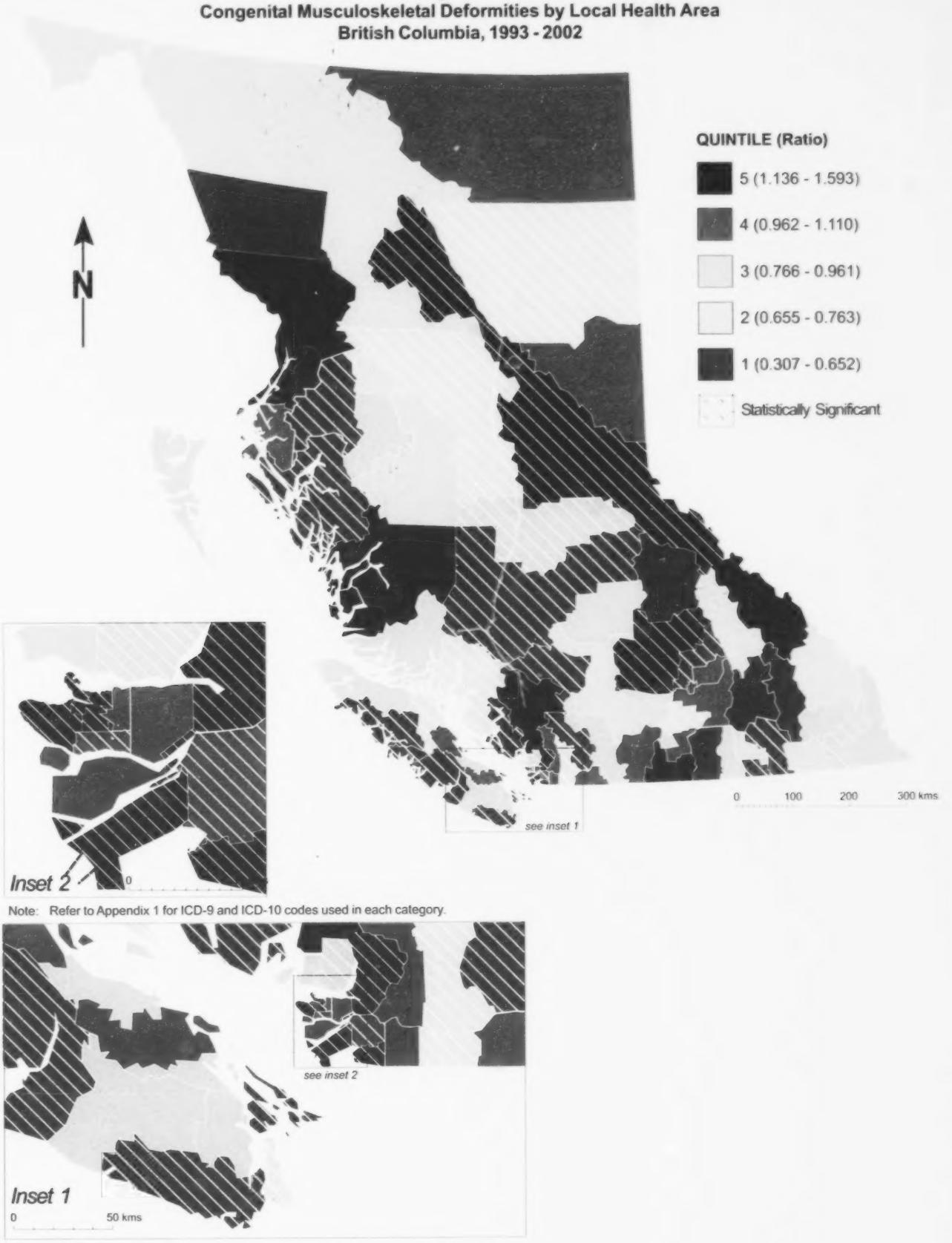
Table 38

Congenital Musculoskeletal Deformities by Local Health Area
British Columbia, 1993 - 2002

Local Health Area		Total Births	Observed	Expected	Ratio	(p)	Rate
001	Fernie	1,409	34	38.9	0.87		24.13
002	Cranbrook	2,556	54	70.5	0.77	-	21.13
003	Kimberley	641	17	17.7	0.96		26.52
004	Windermere	821	17	22.7	0.75		20.71
005	Creston	1,326	25	36.6	0.68		18.85
006	Kootenay Lake	381	6	10.5	0.57		15.75
007	Nelson	2,338	40	64.5	0.62	-	17.11
009	Castlegar	1,200	22	33.1	0.66		18.33
010	Arrow Lakes	510	7	14.1	0.50		13.73
011	Trail	1,778	27	49.1	0.55	-	15.19
012	Grand Forks	693	17	19.1	0.89		24.53
013	Kettle Valley	321	4	8.9	0.45		12.46
014	Southern Okanagan	1,499	47	41.4	1.14		31.35
015	Penticton	3,539	107	97.7	1.10		30.23
016	Keremeos	464	17	12.8	1.33		36.64
017	Princeton	370	10	10.2	0.98		27.03
018	Golden	808	29	22.3	1.30		35.89
019	Revelstoke	929	19	25.6	0.74		20.45
020	Salmon Arm	2,522	32	69.6	0.46	-	12.69
021	Armstrong-Spallumcheen	865	23	23.9	0.96		26.59
022	Vernon	5,701	163	157.3	1.04		28.59
023	Central Okanagan	14,331	292	395.5	0.74	-	20.38
024	Kamloops	10,104	323	278.8	1.16	+	31.97
025	100 Mile House	1,390	32	38.4	0.83		23.02
026	North Thompson	559	9	15.4	0.58		16.10
027	Cariboo-Chilcotin	3,611	59	99.7	0.59	-	16.34
028	Quesnel	3,052	65	84.2	0.77	-	21.30
029	Lillooet	637	9	17.6	0.51	-	14.13
030	South Cariboo	773	14	21.3	0.66		18.11
031	Merritt	1,371	26	37.8	0.69		18.96
032	Hope	860	19	23.7	0.80		22.09
033	Chilliwack	8,667	230	239.2	0.96		26.54
034	Abbotsford	16,268	328	448.9	0.73	-	20.16
035	Langley	12,825	368	353.9	1.04		28.69
037	Delta	11,048	348	304.9	1.14	+	31.50
038	Richmond	16,485	445	454.9	0.98		26.99
040	New Westminster	6,574	282	181.4	1.55	+	42.90
041	Burnaby	20,517	597	566.2	1.05		29.10
042	Maple Ridge	9,254	281	255.4	1.10		30.37
043	Coquitlam	22,530	893	621.7	1.44	+	39.64
044	North Vancouver	14,034	338	387.3	0.87	-	24.08
045	West Vancouver-Bowen Is.	3,185	83	87.9	0.94		26.06
046	Sunshine Coast	2,373	42	65.5	0.64	-	17.70
047	Powell River	1,894	36	52.3	0.69	-	19.01
048	Howe Sound	3,937	128	108.6	1.18		32.51
049	Bella Coola Valley	501	17	13.8	1.23		33.93
050	Queen Charlotte	795	19	21.9	0.87		23.90
051	Snow Country	140	5	3.9	1.29		35.71
052	Prince Rupert	2,754	75	76.0	0.99		27.23
053	Upper Skeena	830	15	22.9	0.65		18.07
054	Smithers	2,729	67	75.3	0.89		24.55
055	Burns Lake	1,078	22	29.8	0.74		20.41
056	Nechako	2,671	52	73.7	0.71	-	19.47
057	Prince George	12,740	457	351.6	1.30	+	35.87
059	Peace River South	3,637	97	100.4	0.97		26.67
060	Peace River North	4,834	100	133.4	0.75	-	20.69
061	Greater Victoria	18,906	398	521.7	0.76	-	21.05
062	Sooke	6,050	104	167.0	0.62	-	17.19
063	Saanich	4,382	84	120.9	0.69	-	19.17
064	Gulf Islands	1,001	17	27.6	0.62	-	16.98
065	Cowichan	5,421	141	149.6	0.94		26.01
066	Lake Cowichan	589	15	16.3	0.92		25.47
067	Ladysmith	1,677	39	46.3	0.84		23.26
068	Nanaimo	8,981	268	247.8	1.08		29.84
069	Qualicum	2,687	58	74.2	0.78		21.59
070	Alberni	3,589	55	99.0	0.56	-	15.32
071	Courtenay	5,488	150	151.4	0.99		27.33
072	Campbell River	4,291	90	118.4	0.76	-	20.97
075	Mission	4,583	84	126.5	0.66	-	18.33
076	Agassiz-Harrison	831	11	22.9	0.48	-	13.24
077	Summerland	859	22	23.7	0.93		25.61
078	Enderby	778	21	21.5	0.98		26.99
080	Kitimat	1,446	26	39.9	0.65	-	17.98
081	Fort Nelson	1,065	31	29.4	1.05		29.11
083	Central Coast	273	12	7.5	1.59		43.96
084	Vancouver Island West	464	4	12.8	0.31	(-)	8.62
085	Vancouver Island North	2,000	43	55.2	0.78		21.50
087	Stikine	106	2	2.9	0.68		18.87
088	Terrace	3,197	53	88.2	0.60	-	16.58
092	Nisga'a	341	11	9.4	1.17		32.26
094	Telegraph Creek	118	1	3.3	0.31		8.47
161	Vancouver - City Centre	6,461	221	178.3	1.24	+	34.21
162	Vancouver - Downtown Eastside	5,299	188	146.2	1.29	+	35.48
163	Vancouver - North East	12,201	339	336.7	1.01		27.78
164	Vancouver - Westside	10,197	372	281.4	1.32	+	36.48
165	Vancouver - Midtown	11,470	433	316.5	1.37	+	37.75
166	Vancouver - South	13,908	426	383.8	1.11	+	30.63
201	Surrey	44,888	1,319	1,238.7	1.06	+	29.38
202	South Surrey/White Rock	4,913	162	135.6	1.19	+	32.97
	Provincial Total	438,119	12,090	12,090.0	1.00		27.60

Notes for table can be found at the end of the Local Health Area Highlights.

Figure 20
Congenital Musculoskeletal Deformities by Local Health Area
British Columbia, 1993 - 2002



Note: Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

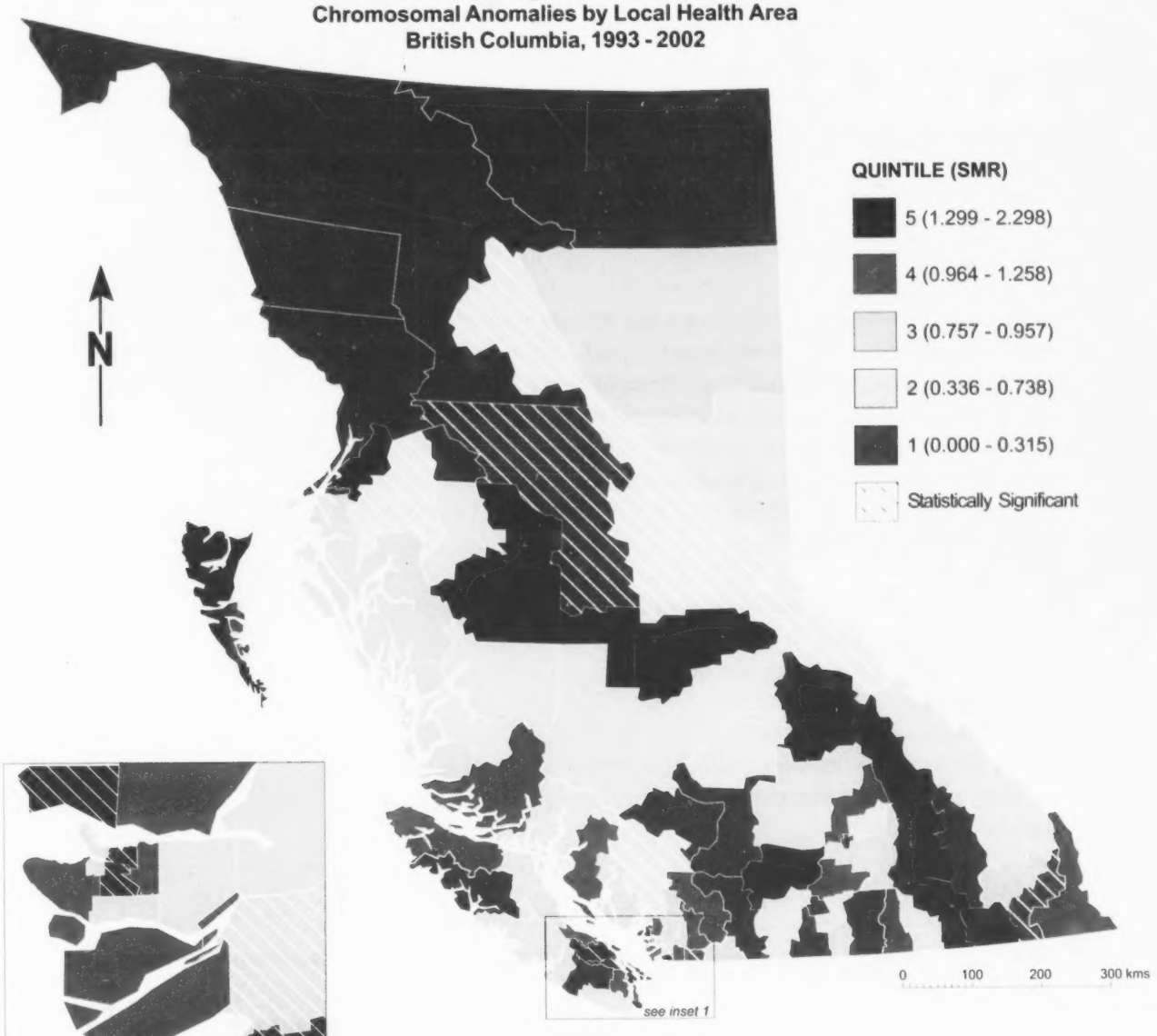
Table 39

Chromosomal Anomalies by Local Health Area British Columbia, 1993 – 2002

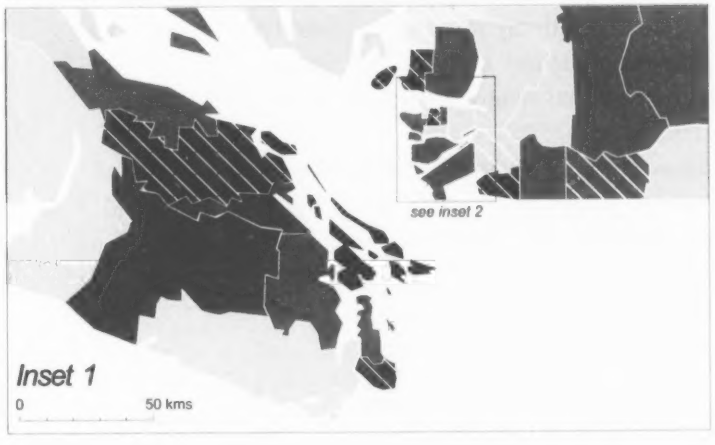
Local	Health Area	Total Births	Observed	Expected	Ratio	(p)	Rate
001	Fernie	1,409	6	5.4	1.11		4.26
002	Cranbrook	2,556	2	9.8	0.20	(-)	0.78
003	Kimberley	641	2	2.5	0.82		3.12
004	Windermere	821	2	3.1	0.64		2.44
005	Creston	1,326	9	5.1	1.77		6.79
006	Kootenay Lake	381	-	1.5	-		-
007	Nelson	2,338	14	9.0	1.56		5.99
009	Castlegar	1,200	3	4.6	0.65		2.50
010	Arrow Lakes	510	4	2.0	2.05		7.84
011	Trail	1,778	5	6.8	0.73		2.81
012	Grand Forks	693	3	2.6	1.13		4.33
013	Kettle Valley	321	-	1.2	-		-
014	Southern Okanagan	1,499	5	5.7	0.87		3.34
015	Penticton	3,539	10	13.6	0.74		2.83
016	Keremeos	464	-	1.8	-		-
017	Princeton	370	1	1.4	0.71		2.70
018	Golden	808	2	3.1	0.65		2.48
019	Revelstoke	929	5	3.6	1.41		5.38
020	Salmon Arm	2,522	11	9.7	1.14		4.36
021	Armstrong-Spallumcheen	865	1	3.3	0.30		1.16
022	Vernon	5,701	18	21.8	0.82		3.16
023	Central Okanagan	14,331	69	54.9	1.26		4.81
024	Kamloops	10,104	33	38.7	0.85		3.27
025	100 Mile House	1,390	2	5.3	0.38		1.44
026	North Thompson	559	3	2.1	1.40		5.37
027	Cariboo-Chilcotin	3,611	10	13.8	0.72		2.77
028	Quesnel	3,052	17	11.7	1.46		5.57
029	Lillooet	637	-	2.4	-		-
030	South Cariboo	773	-	3.0	-		-
031	Merritt	1,371	7	5.3	1.33		5.11
032	Hope	860	1	3.3	0.30		1.16
033	Chilliwack	8,667	31	33.2	0.93		3.58
034	Abbotsford	16,268	78	62.3	1.25	+	4.79
035	Langley	12,825	54	49.1	1.10		4.21
037	Delta	11,048	42	42.3	0.99		3.80
038	Richmond	16,485	65	63.1	1.03		3.94
040	New Westminster	6,574	26	25.2	1.03		3.95
041	Burnaby	20,517	75	78.5	0.96		3.66
042	Maple Ridge	9,254	32	35.4	0.90		3.46
043	Coquitlam	22,530	78	86.2	0.90		3.46
044	North Vancouver	14,034	55	53.7	1.02		3.92
045	West Vancouver-Bowen Is.	3,185	23	12.2	1.89	+	7.22
046	Sunshine Coast	2,373	8	9.1	0.88		3.37
047	Powell River	1,894	9	7.3	1.24		4.75
048	Howe Sound	3,937	7	15.1	0.46	-	1.78
049	Bella Coola Valley	501	1	1.9	0.52		2.00
050	Queen Charlotte	795	4	3.0	1.31		5.03
051	Snow Country	140	-	0.5	-		-
052	Prince Rupert	2,754	9	10.5	0.85		3.27
053	Upper Skeena	830	1	3.2	0.31		1.20
054	Smithers	2,729	7	10.5	0.67		2.57
055	Burns Lake	1,078	7	4.1	1.70		6.49
056	Nechako	2,671	2	10.2	0.20	(-)	0.75
057	Prince George	12,740	25	48.8	0.51	-	1.96
059	Peace River South	3,637	7	13.9	0.50		1.92
060	Peace River North	4,834	14	18.5	0.76		2.90
061	Greater Victoria	18,906	94	72.4	1.30	+	4.97
062	Sooke	6,050	16	23.2	0.69		2.64
063	Saanich	4,382	20	16.8	1.19		4.56
064	Gulf Islands	1,001	7	3.8	1.83		6.99
065	Cowichan	5,421	24	20.8	1.16		4.43
066	Lake Cowichan	589	-	2.3	-		-
067	Ladysmith	1,677	-	6.4	-		-
068	Nanaimo	8,981	69	34.4	2.01	+	7.68
069	Qualicum	2,687	10	10.3	0.97		3.72
070	Alberni	3,589	8	13.7	0.58		2.23
071	Courtenay	5,488	19	21.0	0.90		3.46
072	Campbell River	4,291	12	16.4	0.73		2.80
075	Mission	4,583	21	17.5	1.20		4.58
076	Agassiz-Harrison	831	4	3.2	1.26		4.81
077	Summerland	859	1	3.3	0.30		1.16
078	Enderby	778	1	3.0	0.34		1.29
080	Kitimat	1,446	5	5.5	0.90		3.46
081	Fort Nelson	1,065	-	4.1	-		-
083	Central Coast	273	1	1.0	0.96		3.66
084	Vancouver Island West	464	-	1.8	-		-
085	Vancouver Island North	2,000	8	7.7	1.05		4.00
087	Stikine	106	-	0.4	-		-
088	Terrace	3,197	5	12.2	0.41	-	1.56
092	Nisga'a	341	3	1.3	2.30		8.80
094	Telegraph Creek	118	-	0.5	-		-
161	Vancouver - City Centre	6,461	20	24.7	0.81		3.10
162	Vancouver - Downtown Eastside	5,299	31	20.3	1.53	+	5.85
163	Vancouver - North East	12,201	45	46.7	0.96		3.69
164	Vancouver - Westside	10,197	48	39.0	1.23		4.71
165	Vancouver - Midtown	11,470	86	43.9	1.96	+	7.50
166	Vancouver - South	13,908	42	53.2	0.79		3.02
201	Surrey	44,888	143	171.8	0.83	-	3.19
202	South Surrey/White Rock	4,913	29	18.8	1.54	+	5.90
	Provincial Total	438,119	1,677	1,677.0	1.00		3.83

Notes for table can be found at the end of the Local Health Area Highlights.

Figure 21
Chromosomal Anomalies by Local Health Area
British Columbia, 1993 - 2002



Note: Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.



Section 4: Other Genetic Conditions

Introduction

The majority of genetic abnormalities among infants and children are manifested by anomalous structural development. However, a smaller percent of newborn infants have hereditary malformations, neurological disorders, or inborn errors of metabolism that are revealed as functional disturbances with little or no initial physical abnormality. This section of the report focuses on these "other genetic" conditions which include:

- congenital syphilis
- acromegaly/gigantism
- hypopituitarism (including dwarfism)
- hyperpituitarism and other pituitary disorders
- phenylketonuria (PKU)
- other disorders of amino-acid metabolism
- disorders of carbohydrate metabolism
- disorders of protein metabolism
- disorders of mineral metabolism
- cystic fibrosis
- other and unspecified metabolism disorders
- hereditary hemolytic and aplastic anemias
- hemophilia and other coagulation defects
- Huntington's chorea
- other extrapyramidal diseases
- anterior horn cell diseases (excluding amyotrophic lateral sclerosis)
- hereditary peripheral neuropathy
- muscular dystrophy
- other myopathies
- hereditary disturbance in tooth structure

Although the conditions presented can range in severity from relatively insignificant to incompatible with life; most fall in between these extremes.

- Pituitary disorders can affect growth hormone production resulting in gigantism (acromegaly) or dwarfism.
- Phenylketonuria (PKU), the various metabolism disorders, and cystic fibrosis represent many of the inborn errors of metabolism that are now known to originate from gene mutations. The mode of transmission is usually recessive, making them relatively rare in the general population. The metabolic disorders may have clinical effects in almost any body system; many of these dysfunctions result in neurologic abnormalities, mental retardation, seizures, spasticity, and vomiting or malabsorption leading to growth retardation.
- Huntington's chorea, other extrapyramidal diseases, anterior horn cell diseases, hereditary peripheral neuropathy, muscular dystrophy, and other myopathies are all disorders of the peripheral motor and sensory systems. The clinical effects of these disorders include depression of reflexes, abnormal movements, weakness, various degrees of muscle atrophy, and paralysis. Huntington's chorea is dominantly inherited, unlike most of the other disorders in this group.

This section of the report provides information on the prevalence of genetic conditions in the provincial population as of year-end, 2002 as reported to the HSR. Table 40 provides prevalence counts for the various genetic conditions by age group at the provincial level. Tables providing the same information for each HA and HSDA follow. Counts could not be provided by local health area because of the relatively small numbers of these other genetic conditions registered with the HSR. Geographic assignment was based on the address from the last contact with an HSR reporting source; individuals who had died were excluded. If an individual had more than one diagnosed genetic condition within a category, they were only counted once for that category. However, individuals with genetic conditions in more than one category were counted in each category.

Many genetic conditions do not produce symptoms that are apparent at birth so complete reporting from sources other than Vital Statistics is essential. The tables in this section reflect the information reported to the HSR and should not be interpreted as complete provincial or regional statistics. Variability in the level of reporting and small numbers also caution against making regional comparisons. Additional caveats affecting the data can be found in the Guide to Data Interpretation in the General Information section at the beginning of this report. Appendix I provides ICD codes for genetic conditions shown in this section of the report.

Highlights

There were 41,466 diagnoses of "other genetic conditions" registered with the HSR in 38,349 individuals living in the province at year-end 2002.

Hereditary disturbance in tooth structure was the genetic condition most frequently reported to HSR with 14,846 diagnoses. These conditions accounted for more than a third (35.8%) of the other genetic conditions shown. Almost half the diagnoses (48.4%) were in individuals aged 20-29 years old. The Health Authority with the most diagnoses of hereditary disturbance in tooth structure was 04 Vancouver Island (with 5,127 diagnoses). Among Health Service Delivery Areas, the largest number of diagnoses was in 41 South Vancouver Island (2,066), followed by 32 Vancouver (1,987) and 22 Fraser North (1,805).

Hemophilia and other coagulation defects were the second most frequently reported conditions, with 5,359 diagnoses accounting for 12.9% of the other genetic conditions shown. Individuals with these conditions were spread fairly evenly across age groups, although only a tenth (545 diagnoses accounting for 10.2% of the hemophilia and coagulation defect diagnoses) were less than 20 years old. The HA with the most diagnoses was 02 Fraser, with 1,949 diagnoses of hemophilia and other coagulation defects. Among HSDAs, the largest number of diagnoses was in 23 Fraser South (823), followed by 22 Fraser North (688) and 32 Vancouver (672).

Disorders of mineral metabolism were the third most frequent condition reported to the HSR, with 5,117 diagnoses accounting for 12.3% of the other genetic conditions. More than a third (37.7%) of the individuals with diagnoses of mineral metabolism disorders were seniors (65 years of age or more). The HA with the most diagnoses was 02 Fraser (with 1,426); the HSDA with the largest number of diagnoses of disorders of mineral metabolism was 32 Vancouver (749).

A genetic condition of interest is cystic fibrosis (CF), a recessive disorder characterized by chronic airway infection. In previous generations, few individuals with CF lived to adulthood. Due to improvements in therapy, people with CF now live into and past their 30's and 40's. They also have the ability to live fuller and more comfortable lives. There were 717 diagnoses of CF reported to HSR, 84.9% were in individuals less than 40 years old, and more than two thirds (66.7%) were less than 30 years old. The HA with the most CF diagnoses was 02 Fraser (with 248) and roughly half (122) were in HSDA 23 Fraser South.

Another genetic condition which can reduce life expectancy is muscular dystrophy, although individuals with milder forms may have a slow progression of the disease over a normal life span. There were 602 diagnoses of muscular dystrophy reported to HSR, half (301 diagnoses) were in individuals who were less than 40 years of age. The HA with the most diagnoses of muscular dystrophy was 02 Fraser (with 186). Among HSDAs, the largest number of diagnoses were in 23 Fraser South (75), 32 Vancouver (73), and 22 Fraser North (70).

Table 40

Counts of Individuals Living with "Other" Genetic Conditions by Age Group British Columbia, As of Year-End 2002

Provincial Total

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	1	2	4	5	3	1	5	-	-	-	1	2	1	1	1	3	30	0.1
Acromegaly/gigantism	-	1	8	7	4	4	4	8	16	18	19	16	21	9	7	28	170	0.4
Hypopituitarism (includes dwarfism)	3	18	37	20	54	43	30	29	31	47	34	29	31	23	29	88	546	1.3
Hyperpituitarism & other pituitary disor.	1	9	17	22	37	52	42	62	70	91	75	66	56	45	51	97	793	1.9
Phenylketonuria (PKU)	3	12	30	12	31	21	14	10	11	13	10	5	7	3	-	3	185	0.4
Other dis.of amino-acid metabolism	-	20	21	25	22	16	14	18	14	18	23	19	7	3	6	12	238	0.6
Disorders of carbohydrate trans./metab.	4	16	23	35	19	11	19	11	19	12	13	20	12	8	7	8	237	0.6
Disorders of protein metabolism	44	88	73	107	53	46	39	40	73	90	111	102	106	111	103	536	1,722	4.2
Disorders of mineral metabolism	30	90	149	177	137	107	111	193	214	298	414	417	438	413	415	1,514	5,117	12.3
Cystic fibrosis	7	64	75	105	83	72	72	73	58	38	25	17	10	6	5	7	717	1.7
Other and unspecified disorders of metab.	4	41	63	77	56	58	57	60	81	121	127	122	81	73	75	203	1,299	3.1
Hereditary hemolytic & aplastic anemias	9	132	234	224	202	199	273	432	567	534	367	208	129	100	107	357	4,074	9.8
Hemophilia and other coagulation defects	22	69	138	161	155	203	270	497	579	551	365	347	285	291	290	1,136	5,359	12.9
Huntington's chorea	-	-	-	1	2	1	1	3	12	24	18	31	23	27	20	32	195	0.5
Other extrapyramidal diseases	5	48	72	63	76	88	76	96	159	190	199	169	180	160	193	868	2,642	6.4
Anterior horn cell diseases (excl. ALS)	4	3	14	16	12	10	17	6	15	14	9	7	8	4	14	44	197	0.5
Hereditary peripheral neuropathy	-	3	21	25	43	49	32	62	76	92	84	121	102	91	104	478	1,383	3.3
Muscular dystrophy	2	13	37	45	30	38	39	45	52	59	54	52	46	23	20	47	602	1.5
Other myopathies	3	22	77	74	48	46	54	57	85	90	84	89	93	58	56	178	1,114	2.7
Hereditary disturbance in tooth structure	3	47	91	360	738	1,251	5,935	3,926	2,145	190	64	32	15	15	6	28	14,846	35.8
Total Diagnoses	**145**	**698**	**1,184**	**1,561**	**1,805**	**2,316**	**7,104**	**5,628**	**4,277**	**2,490**	**2,096**	**1,871**	**1,651**	**1,464**	**1,509**	**5,667**	**41,466**	**100.0**
Total Cases	**117**	**563**	**991**	**1,363**	**1,575**	**2,110**	**6,871**	**5,388**	**4,027**	**2,277**	**1,904**	**1,705**	**1,492**	**1,348**	**1,385**	**5,233**	**38,349**	

Table 41

Counts of Individuals Living with "Other" Genetic Conditions by Age Group British Columbia, As of Year-End 2002

01 Interior HA

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	-	-	1	-	-	-	-	-	1	1	-	-	-	1	4	0.1
Acromegaly/gigantism	-	1	4	-	1	1	1	1	3	3	2	4	5	3	3	5	37	0.6
Hypopituitarism (includes dwarfism)	-	4	5	3	10	13	4	6	9	6	4	4	9	5	2	17	101	1.6
Hyperpituitarism & other pituitary disor.	1	2	4	4	9	12	8	6	13	16	11	12	10	9	14	16	147	2.4
Phenylketonuria (PKU)	1	2	8	3	10	1	5	2	3	2	2	2	1	1	-	-	43	0.7
Other dis.of amino-acid metabolism	-	2	2	6	10	1	-	2	3	6	2	2	-	-	2	3	41	0.7
Disorders of carbohydrate trans./metab.	-	4	2	5	4	3	3	1	4	3	6	7	3	-	1	1	47	0.8
Disorders of protein metabolism	5	17	15	20	21	11	7	8	9	19	21	20	12	32	19	107	343	5.5
Disorders of mineral metabolism	2	7	20	27	30	15	13	22	42	44	81	79	93	82	100	346	1,003	16.0
Cystic fibrosis	-	8	17	20	28	18	21	9	13	8	6	3	5	2	2	4	164	2.6
Other and unspecified disorders of metab.	-	9	6	9	7	6	10	15	12	23	20	19	13	12	20	47	228	3.6
Hereditary hemolytic & aplastic anemias	1	11	16	18	30	16	24	20	23	29	24	23	21	15	20	55	346	5.5
Hemophilia and other coagulation defects	5	5	21	27	19	31	50	72	99	88	65	77	56	64	66	214	959	15.3
Huntington's chorea	-	-	-	-	-	-	-	-	1	5	2	2	5	5	5	5	30	0.5
Other extrapyramidal diseases	-	12	12	11	20	10	13	20	22	39	37	43	32	37	50	204	562	9.0
Anterior horn cell diseases (excl. ALS)	-	-	1	-	-	2	1	-	1	2	2	-	-	1	2	11	23	0.4
Hereditary peripheral neuropathy	-	-	1	2	6	7	6	11	13	17	16	28	17	18	25	119	286	4.6
Muscular dystrophy	-	1	7	9	7	3	4	3	9	17	16	11	9	3	7	10	116	1.9
Other myopathies	-	4	10	8	7	8	11	10	12	19	19	21	13	9	13	38	202	3.2
Hereditary disturbance in tooth structure	-	4	7	35	87	107	583	442	271	21	7	2	2	-	1	4	1,573	25.1
Total Diagnoses	**15**	**93**	**158**	**207**	**307**	**265**	**764**	**650**	**562**	**367**	**344**	**360**	**306**	**298**	**352**	**1,207**	**6,255**	**100.0**
Total Cases	**12**	**81**	**143**	**183**	**267**	**236**	**738**	**615**	**524**	**329**	**310**	**318**	**278**	**276**	**319**	**1,113**	**5,742**	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 42

Counts of Individuals Living with "Other" Genetic Conditions by Age Group British Columbia, As of Year-End 2002

02 Fraser HA

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	1	1	2	2	1	-	3	-	-	-	-	1	1	1	-	-	13	0.1
Acromegaly/gigantism	-	-	2	3	1	-	1	4	8	6	9	2	6	1	2	9	54	0.4
Pituitary dwarfism	-	5	11	5	9	13	10	10	10	16	9	10	4	3	12	23	150	1.2
Hyper/hypo & other pituitary dysfunction	-	3	6	3	5	16	16	20	23	30	23	21	19	15	13	26	239	1.9
Phenylketonuria (PKU)	-	3	9	5	6	6	6	4	3	6	5	2	4	1	-	1	61	0.5
Other dis.of amino-acid trans./metab.	-	10	8	5	5	7	4	10	7	1	6	9	4	-	1	4	81	0.6
Disorders of carbohydrate trans./metab.	3	6	9	15	9	3	8	3	8	2	3	4	5	3	2	5	88	0.7
Disorders of plasma protein metabolism	13	30	22	39	15	16	15	18	24	27	38	26	34	23	35	148	523	4.1
Disordes of mineral metabolism	10	44	70	73	49	34	30	67	66	82	121	106	112	93	117	352	1,426	11.3
Cystic fibrosis	5	35	22	38	25	24	20	26	19	9	10	9	2	1	1	2	248	2.0
Other and unspecified disorders of metab.	1	11	23	34	23	10	16	15	27	37	36	36	11	28	18	65	391	3.1
Hereditary hemolytic & aplastic anemias	4	37	99	96	66	63	113	159	212	173	132	69	36	28	28	102	1,417	11.2
Hemophilia and other coagulation defects	10	27	61	51	57	70	101	207	220	194	121	101	101	98	98	432	1,949	15.4
Huntington's chorea	-	-	-	-	1	-	1	2	6	6	6	9	11	9	5	11	67	0.5
Other extrapyramidal diseases	1	11	18	23	23	33	17	24	39	62	52	45	43	44	36	212	683	5.4
Anterior horn cell diseases (excl. ALS)	2	3	2	6	7	3	2	3	7	1	5	4	2	1	5	18	71	0.6
Hereditary peripheral neuropathy	-	-	7	11	13	17	13	23	28	25	25	39	27	23	31	116	398	3.1
Muscular dystrophy	1	6	14	19	10	12	6	15	19	9	20	17	16	10	4	8	186	1.5
Other myopathies	-	7	33	28	16	14	19	19	23	27	34	22	23	15	18	43	341	2.7
Hereditary disturbance in tooth structure	2	22	51	131	282	407	1,578	1,093	657	18	5	1	2	1	1	4	4,255	33.7
Total Diagnoses	**53**	**261**	**469**	**587**	**623**	**748**	**1,979**	**1,722**	**1,406**	**731**	**660**	**533**	**463**	**398**	**427**	**1,581**	**12,641**	**100.0**
Total Cases	**44**	**199**	**386**	**513**	**537**	**674**	**1,891**	**1,623**	**1,324**	**669**	**601**	**498**	**421**	**382**	**393**	**1,474**	**11,629**	

Table 43

Counts of Individuals Living with "Other" Genetic Conditions by Age Group British Columbia, As of Year-End 2002

03 Vancouver Coastal HA

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	1	2	-	1	-	1	-	-	-	-	-	-	-	-	1	6	0.1
Acromegaly/gigantism	-	-	1	2	1	-	1	1	3	4	5	6	3	2	1	10	40	0.4
Pituitary dwarfism	-	4	7	3	14	5	9	3	9	11	11	6	7	8	6	27	130	1.3
Hyper/hypo & other pituitary dysfunction	-	2	3	5	11	6	10	9	19	21	20	18	8	12	10	26	180	1.7
Phenylketonuria (PKU)	-	2	6	2	3	6	2	2	2	2	-	1	-	-	-	-	30	0.3
Other dis.of amino-acid trans./metab.	-	6	4	3	3	4	8	5	3	4	5	7	1	-	1	3	57	0.6
Disorders of carbohydrate trans./metab.	1	4	6	7	4	2	4	2	4	2	-	2	-	1	-	-	39	0.4
Disorders of plasma protein metabolism	16	17	18	16	7	6	5	5	18	19	16	21	22	24	21	120	351	3.4
Disordes of mineral metabolism	10	24	30	32	21	26	33	52	57	94	82	96	114	92	91	375	1,229	11.9
Cystic fibrosis	-	7	15	7	7	13	15	10	16	12	5	3	2	1	1	-	114	1.1
Other and unspecified disorders of metab.	-	9	12	14	10	15	8	17	24	32	28	32	27	14	15	44	301	2.9
Hereditary hemolytic & aplastic anemias	1	62	82	78	72	90	99	218	300	269	169	82	45	41	38	126	1,772	17.2
Hemophilia and other coagulation defects	2	20	22	39	36	28	55	118	149	143	76	73	57	59	55	234	1,166	11.3
Huntington's chorea	-	-	-	-	-	1	-	-	1	5	7	15	1	7	5	11	53	0.5
Other extrapyramidal diseases	2	12	19	10	17	18	23	29	62	57	59	58	58	52	48	253	777	7.5
Anterior horn cell diseases (excl. ALS)	1	-	4	6	-	-	6	2	4	7	1	1	2	1	2	7	44	0.4
Hereditary peripheral neuropathy	-	2	2	4	14	9	10	12	17	26	26	24	26	25	28	134	359	3.5
Muscular dystrophy	-	2	3	7	3	5	13	15	11	18	9	11	7	3	4	18	129	1.2
Other myopathies	-	5	17	16	3	12	11	18	28	19	12	26	21	12	15	61	274	2.7
Hereditary disturbance in tooth structure	-	13	15	99	232	342	1,263	873	410	9	5	3	4	4	-	3	3,275	31.7
Total Diagnoses	**33**	**192**	**268**	**350**	**459**	**590**	**1,576**	**1,389**	**1,137**	**754**	**536**	**485**	**405**	**358**	**341**	**1,453**	**10,326**	**100.0**
Total Cases	**26**	**154**	**226**	**307**	**393**	**539**	**1,524**	**1,336**	**1,051**	**689**	**491**	**445**	**376**	**317**	**311**	**1,332**	**9,517**	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 44
Counts of Individuals Living with "Other" Genetic Conditions by Age Group
British Columbia, As of Year-End 2002

04 Vancouver Island HA

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	0.0
Acromegaly/gigantism	-	-	1	1	1	3	-	2	2	3	2	4	6	3	1	3	32	0.3
Pituitary dwarfism	3	5	7	6	17	7	5	7	2	9	9	7	8	6	7	19	124	1.3
Hyper/hypo & other pituitary dysfunction	-	2	-	8	9	13	5	19	12	16	17	13	12	6	13	26	171	1.8
Phenylketonuria (PKU)	2	1	5	1	11	4	1	1	3	2	3	-	2	1	-	2	39	0.4
Other dis.of amino-acid trans./metab.	-	2	6	8	2	3	1	1	1	5	4	1	2	3	2	2	43	0.4
Disorders of carbohydrate trans./metab.	-	2	4	2	1	2	4	5	2	4	1	4	4	3	2	1	41	0.4
Disorders of plasma protein metabolism	6	14	13	20	4	10	10	7	19	13	19	21	27	16	16	118	333	3.4
Disordes of mineral metabolism	3	7	19	29	19	21	28	37	33	53	94	88	80	106	80	355	1,052	10.9
Cystic fibrosis	1	9	14	24	18	11	13	18	7	8	4	2	-	-	1	1	131	1.4
Other and unspecified disorders of metab.	2	7	14	13	11	19	14	10	14	20	30	25	20	15	16	35	265	2.7
Hereditary hemolytic & aplastic anemias	3	13	24	23	29	19	27	19	24	40	28	24	22	10	16	56	377	3.9
Hemophilia and other coagulation defects	4	8	20	29	28	46	40	63	75	81	68	71	43	47	46	193	862	8.9
Huntington's chorea	-	-	-	1	1	-	-	1	1	8	3	4	5	6	5	3	38	0.4
Other extrapyramidal diseases	1	8	18	15	10	14	14	8	20	22	31	14	32	19	42	148	416	4.3
Anterior horn cell diseases (excl. ALS)	1	-	7	4	5	2	4	1	3	3	1	1	4	1	4	6	47	0.5
Hereditary peripheral neuropathy	-	-	9	4	7	11	2	12	13	18	13	21	25	16	14	76	241	2.5
Muscular dystrophy	1	3	9	7	6	15	10	8	10	7	8	8	11	4	3	10	120	1.2
Other myopathies	2	4	14	13	13	9	9	10	15	14	13	18	24	14	8	28	208	2.2
Hereditary disturbance in tooth structure	-	3	10	75	97	351	2,279	1,372	711	128	41	24	5	10	4	17	5,127	53.0
Total Diagnoses	**29**	**88**	**194**	**283**	**289**	**560**	**2,466**	**1,601**	**967**	**454**	**389**	**350**	**332**	**286**	**281**	**1,099**	**9,668**	**100.0**
Total Cases	**22**	**75**	**157**	**240**	**262**	**527**	**2,412**	**1,556**	**936**	**422**	**358**	**317**	**293**	**260**	**265**	**1,014**	**9,116**	

Table 45
Counts of Individuals Living with "Other" Genetic Conditions by Age Group
British Columbia, As of Year-End 2002

05 Northern HA

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	-	3	-	1	1	-	-	-	-	-	-	-	-	1	6	0.2
Acromegaly/gigantism	-	-	-	1	-	-	1	-	-	2	1	-	1	-	-	1	7	0.3
Pituitary dwarfism	-	-	7	3	4	5	2	3	1	5	1	2	3	1	2	2	41	1.6
Hyper/hypo & other pituitary dysfunction	-	-	4	2	3	5	3	8	3	8	4	2	7	3	1	3	56	2.2
Phenylketonuria (PKU)	-	4	2	1	1	2	-	1	-	1	-	-	-	-	-	-	12	0.5
Other dis.of amino-acid trans./metab.	-	-	1	3	2	1	1	-	-	2	6	-	-	-	-	-	16	0.6
Disorders of carbohydrate trans./metab.	-	-	2	6	1	1	-	-	1	1	3	3	-	1	2	1	22	0.9
Disorders of plasma protein metabolism	4	10	5	12	6	3	2	2	3	12	17	14	11	16	12	43	172	6.7
Disordes of mineral metabolism	5	8	10	16	18	11	7	15	16	25	36	48	39	40	27	86	407	15.8
Cystic fibrosis	1	5	7	16	5	6	3	10	3	1	-	-	1	2	-	-	60	2.3
Other and unspecified disorders of metab.	1	5	8	7	5	8	9	3	4	9	13	10	10	4	6	12	114	4.4
Hereditary hemolytic & aplastic anemias	-	9	13	9	5	11	10	16	8	23	14	10	5	6	5	18	162	6.3
Hemophilia and other coagulation defects	1	9	14	15	15	28	24	37	36	45	35	25	28	23	25	63	423	16.4
Huntington's chorea	-	-	-	-	-	-	-	-	3	-	-	1	1	-	-	2	7	0.3
Other extrapyramidal diseases	1	5	5	4	6	13	9	15	16	10	20	9	15	8	17	51	204	7.9
Anterior horn cell diseases (excl. ALS)	-	-	-	-	-	3	4	-	-	1	-	1	-	-	1	2	12	0.5
Hereditary peripheral neuropathy	-	1	2	4	3	5	1	4	5	6	4	9	7	9	6	33	99	3.8
Muscular dystrophy	-	1	4	3	4	3	6	4	3	8	1	5	3	3	2	1	51	2.0
Other myopathies	1	2	3	9	9	3	4	2	7	11	6	2	12	8	2	8	89	3.5
Hereditary disturbance in tooth structure	1	5	8	20	40	44	232	146	96	14	6	2	2	-	-	-	616	23.9
Total Diagnoses	**15**	**64**	**95**	**134**	**127**	**153**	**319**	**266**	**205**	**184**	**167**	**143**	**145**	**124**	**108**	**327**	**2,576**	**100.0**
Total Cases	**13**	**54**	**79**	**120**	**116**	**134**	**306**	**258**	**192**	**168**	**144**	**127**	**124**	**113**	**97**	**300**	**2,345**	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 46

Counts of Individuals Living with "Other" Genetic Conditions by Age Group
British Columbia, As of Year-End 2002

11 East Kootenay HSDA

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acromegaly/gigantism	-	-	1	-	-	-	-	-	-	-	1	1	-	-	-	-	3	0.5
Pituitary dwarfism	-	-	-	-	1	2	-	1	1	-	-	1	-	-	1	-	7	1.2
Hyper/hypo & other pituitary dysfunction	1	-	-	-	-	2	-	1	-	1	1	-	1	-	3	-	10	1.7
Phenylketonuria (PKU)	-	-	1	1	2	1	1	1	-	-	-	-	-	-	-	-	7	1.2
Other dis.of amino-acid trans./metab.	-	-	-	1	1	-	-	1	-	-	-	-	-	-	-	-	3	0.5
Disorders of carbohydrate trans./metab.	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	2	0.3
Disorders of plasma protein metabolism	1	1	1	1	5	2	-	2	-	3	2	1	1	2	5	18	45	7.7
Disordes of mineral metabolism	-	1	2	2	4	1	1	3	2	3	15	10	13	8	14	34	113	19.4
Cystic fibrosis	-	-	1	-	1	1	-	-	1	1	1	1	-	1	1	-	9	1.5
Other and unspecified disorders of metab.	-	-	1	1	-	-	1	-	3	2	2	1	1	-	3	3	18	3.1
Hereditary hemolytic & aplastic anemias	-	2	2	1	-	-	-	4	1	2	3	7	3	-	2	8	35	6.0
Hemophilia and other coagulation defects	-	2	2	2	4	6	2	5	7	7	7	1	7	5	6	22	85	14.6
Huntington's chorea	-	-	-	-	-	-	-	-	1	-	1	1	2	1	-	2	8	1.4
Other extrapyramidal diseases	-	1	-	-	1	1	1	2	2	2	-	5	3	2	5	20	45	7.7
Anterior horn cell diseases (excl. ALS)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	0.3
Hereditary peripheral neuropathy	-	-	-	-	1	-	1	1	1	2	2	1	2	2	4	15	32	5.5
Muscular dystrophy	-	-	1	-	-	-	-	-	-	3	-	1	1	-	-	-	6	1.0
Other myopathies	-	-	-	-	-	-	2	1	1	3	1	4	2	1	1	5	21	3.6
Hereditary disturbance in tooth structure	-	1	1	2	8	5	47	41	24	2	-	-	-	-	-	1	132	22.6
Total Diagnoses	**2**	**8**	**13**	**11**	**28**	**21**	**56**	**63**	**45**	**31**	**36**	**36**	**36**	**22**	**45**	**130**	**583**	**100.0**
Total Cases	**2**	**8**	**13**	**11**	**25**	**19**	**56**	**60**	**43**	**30**	**29**	**35**	**34**	**22**	**39**	**117**	**543**	

Table 47

Counts of Individuals Living with "Other" Genetic Conditions by Age Group
British Columbia, As of Year-End 2002

12 Kootenay Boundary HSDA

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	0.1
Acromegaly/gigantism	-	-	1	-	-	-	-	-	1	1	-	1	1	-	-	-	5	0.6
Pituitary dwarfism	-	-	2	-	2	1	-	1	1	-	-	1	2	2	-	3	15	1.7
Hyper/hypo & other pituitary dysfunction	-	-	1	-	2	3	1	1	-	1	1	1	1	1	-	1	14	1.6
Phenylketonuria (PKU)	-	-	2	-	1	-	-	1	-	-	-	1	-	-	-	-	5	0.6
Other dis.of amino-acid trans./metab.	-	1	-	-	2	1	-	-	1	-	-	-	-	-	2	-	7	0.8
Disorders of carbohydrate trans./metab.	-	-	-	2	1	-	-	-	-	1	-	-	2	-	-	1	7	0.8
Disorders of plasma protein metabolism	1	1	3	2	4	-	-	-	2	3	2	1	2	5	3	13	42	4.7
Disordes of mineral metabolism	-	2	1	5	3	3	1	3	6	12	7	19	11	9	9	47	138	15.3
Cystic fibrosis	-	-	-	-	4	1	3	-	2	-	1	1	-	-	-	-	12	1.3
Other and unspecified disorders of metab.	-	-	-	1	2	1	1	-	3	4	3	3	3	1	3	9	34	3.8
Hereditary hemolytic & aplastic anemias	-	2	3	3	5	4	2	-	6	5	6	4	2	1	2	9	54	6.0
Hemophilia and other coagulation defects	1	-	-	4	3	3	4	10	9	14	11	17	7	14	11	29	137	15.2
Huntington's chorea	-	-	-	-	-	-	-	-	-	2	-	1	-	-	1	1	5	0.6
Other extrapyramidal diseases	-	3	1	1	3	-	-	2	2	3	7	10	4	7	5	14	62	6.9
Anterior horn cell diseases (excl. ALS)	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	2	0.2
Hereditary peripheral neuropathy	-	-	1	-	-	1	-	-	2	4	3	6	4	5	7	12	45	5.0
Muscular dystrophy	-	-	1	1	1	-	1	-	3	2	2	-	2	1	1	4	19	2.1
Other myopathies	-	-	1	-	1	-	1	1	1	4	4	2	6	1	2	4	28	3.1
Hereditary disturbance in tooth structure	-	1	-	4	8	5	107	77	55	5	3	1	1	-	-	1	268	29.8
Total Diagnoses	**2**	**10**	**17**	**23**	**43**	**23**	**121**	**96**	**94**	**62**	**58**	**69**	**48**	**47**	**47**	**148**	**900**	**100.0**
Total Cases	**2**	**9**	**16**	**20**	**35**	**22**	**119**	**92**	**90**	**54**	**50**	**64**	**43**	**43**	**45**	**140**	**844**	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 48
Counts of Individuals Living with "Other" Genetic Conditions by Age Group
British Columbia, As of Year-End 2002

13 Okanagan HSDA

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	2	0.1
Acromegaly/gigantism	-	1	-	-	-	-	1	1	1	1	1	1	2	2	1	2	14	0.5
Pituitary dwarfism	-	4	3	1	4	6	3	2	4	3	3	1	4	2	1	11	52	1.9
Hyper/hypo & other pituitary dysfunction	-	2	2	3	5	2	1	-	8	4	6	7	6	6	5	8	65	2.4
Phenylketonuria (PKU)	1	-	3	1	1	-	3	-	-	1	2	1	1	1	-	-	15	0.6
Other dis.of amino-acid trans./metab.	-	1	1	1	5	-	-	1	1	5	2	1	-	-	-	2	20	0.7
Disorders of carbohydrate trans./metab.	-	4	1	3	2	1	1	1	2	1	5	2	1	-	1	-	25	0.9
Disorders of plasma protein metabolism	2	7	9	9	6	6	5	3	2	5	9	14	5	20	3	45	150	5.5
Disordes of mineral metabolism	2	2	6	11	19	6	5	5	23	15	35	22	35	44	43	180	453	16.7
Cystic fibrosis	-	3	11	16	15	11	11	6	3	5	4	-	4	-	-	-	89	3.3
Other and unspecified disorders of metab.	-	7	5	4	2	3	5	8	4	8	8	12	5	4	8	24	107	4.0
Hereditary hemolytic & aplastic anemias	1	5	6	7	12	3	14	7	7	17	11	9	7	7	10	27	150	5.5
Hemophilia and other coagulation defects	4	1	12	8	9	13	17	30	43	38	20	35	20	27	23	94	394	14.5
Huntington's chorea	-	-	-	-	-	-	-	-	-	1	1	-	2	4	3	-	11	0.4
Other extrapyramidal diseases	-	2	6	6	9	3	5	10	11	12	20	15	18	18	21	109	265	9.8
Anterior horn cell diseases (excl. ALS)	-	-	1	-	-	2	1	-	-	1	-	-	-	-	1	7	13	0.5
Hereditary peripheral neuropathy	-	-	-	-	3	3	4	4	4	5	6	10	9	6	10	71	135	5.0
Muscular dystrophy	-	1	5	6	-	1	1	3	2	7	5	10	3	2	4	4	54	2.0
Other myopathies	-	3	7	2	2	2	4	7	6	9	7	9	4	4	6	20	92	3.4
Hereditary disturbance in tooth structure	-	2	2	13	47	60	226	146	98	6	-	1	-	-	-	1	602	22.2
Total Diagnoses	**10**	**45**	**80**	**91**	**141**	**122**	**307**	**234**	**219**	**144**	**146**	**151**	**126**	**147**	**140**	**605**	**2,708**	**100.0**
Total Cases	**7**	**37**	**68**	**80**	**119**	**103**	**297**	**219**	**202**	**132**	**132**	**128**	**114**	**133**	**127**	**558**	**2,456**	

Table 49
Counts of Individuals Living with "Other" Genetic Conditions by Age Group
British Columbia, As of Year-End 2002

14 Thompson Cariboo Shuswap HSDA

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	0.0
Acromegaly/gigantism	-	-	2	-	1	1	-	-	1	1	-	1	2	1	2	3	15	0.7
Pituitary dwarfism	-	-	-	2	3	4	1	2	3	3	1	1	3	1	-	3	27	1.3
Hyper/hypo & other pituitary dysfunction	-	-	1	1	2	5	6	4	5	10	3	4	2	2	6	7	58	2.8
Phenylketonuria (PKU)	-	2	2	1	6	-	1	-	3	1	-	-	-	-	-	-	16	0.8
Other dis.of amino-acid trans./metab.	-	-	1	4	2	-	-	-	1	1	-	1	-	-	-	1	11	0.5
Disorders of carbohydrate trans./metab.	-	-	1	-	1	2	2	-	1	1	1	4	-	-	-	-	13	0.6
Disorders of plasma protein metabolism	1	8	2	8	6	3	2	3	5	8	8	4	4	5	8	31	106	5.1
Disordes of mineral metabolism	-	2	11	9	4	5	6	11	11	14	24	28	34	21	34	85	299	14.5
Cystic fibrosis	-	5	5	4	8	5	7	3	7	2	-	1	1	1	1	4	54	2.6
Other and unspecified disorders of metab.	-	2	-	3	3	2	3	7	2	9	7	3	4	7	6	11	69	3.3
Hereditary hemolytic & aplastic anemias	-	2	5	7	13	9	8	9	9	5	4	3	9	7	6	11	107	5.2
Hemophilia and other coagulation defects	-	2	7	13	3	9	27	27	40	29	27	24	22	18	26	69	343	16.6
Huntington's chorea	-	-	-	-	-	-	-	-	-	2	-	-	1	-	1	2	6	0.3
Other extrapyramidal diseases	-	6	5	4	7	6	7	6	7	22	10	13	7	10	19	61	190	9.2
Anterior horn cell diseases (excl. ALS)	-	-	-	-	-	-	-	-	1	-	2	-	-	1	-	2	6	0.3
Hereditary peripheral neuropathy	-	-	-	2	2	3	1	6	6	6	5	11	2	5	4	21	74	3.6
Muscular dystrophy	-	-	-	2	6	2	2	-	4	5	9	-	3	-	2	2	37	1.8
Other myopathies	-	1	2	6	4	6	4	1	4	3	7	6	1	3	4	9	61	3.0
Hereditary disturbance in tooth structure	-	-	4	16	24	37	203	178	94	8	4	-	1	-	1	1	571	27.7
Total Diagnoses	**1**	**30**	**48**	**82**	**95**	**99**	**280**	**257**	**204**	**130**	**112**	**104**	**96**	**82**	**120**	**324**	**2,064**	**100.0**
Total Cases	**1**	**27**	**46**	**72**	**88**	**92**	**266**	**244**	**189**	**113**	**99**	**91**	**87**	**78**	**108**	**298**	**1,899**	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 50

Counts of Individuals Living with "Other" Genetic Conditions by Age Group British Columbia, As of Year-End 2002

21 Fraser East HSDA

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	2	0.1
Acromegaly/gigantism	-	-	-	1	-	-	1	-	2	1	2	-	2	-	-	2	11	0.5
Pituitary dwarfism	-	1	1	-	4	5	1	3	3	3	-	1	1	-	1	5	29	1.2
Hyper/hypo & other pituitary dysfunction	-	-	-	1	1	3	6	5	4	5	5	2	2	2	5	5	46	2.0
Phenylketonuria (PKU)	-	-	1	2	3	1	-	1	-	2	1	-	1	-	-	-	12	0.5
Other dis.of amino-acid trans./metab.	-	2	3	-	2	1	-	2	1	-	2	-	-	-	-	1	14	0.6
Disorders of carbohydrate trans./metab.	-	3	1	3	3	1	3	1	3	1	1	1	-	1	1	-	23	1.0
Disorders of plasma protein metabolism	3	5	5	8	-	8	3	6	5	6	4	6	10	5	6	31	111	4.7
Disordes of mineral metabolism	1	4	10	11	8	6	4	12	14	16	22	17	25	18	23	83	276	11.7
Cystic fibrosis	1	5	5	9	4	10	3	2	3	-	1	2	-	-	-	1	46	2.0
Other and unspecified disorders of metab.	-	3	4	5	7	2	3	4	4	10	6	5	1	7	3	11	75	3.2
Hereditary hemolytic & aplastic anemias	-	6	7	10	11	4	12	12	8	10	20	5	2	6	5	9	127	5.4
Hemophilia and other coagulation defects	3	5	12	13	10	13	15	32	34	27	19	14	19	28	26	168	438	18.6
Huntington's chorea	-	-	-	-	1	-	-	-	-	-	-	3	2	2	-	2	10	0.4
Other extrapyramidal diseases	-	1	6	7	4	6	3	6	5	11	8	8	8	5	7	41	126	5.4
Anterior horn cell diseases (excl. ALS)	2	1	2	4	1	2	1	1	4	1	-	1	-	-	-	1	21	0.9
Hereditary peripheral neuropathy	-	-	-	3	-	4	2	6	7	5	4	5	7	6	8	27	84	3.6
Muscular dystrophy	1	1	5	4	5	3	1	2	3	2	3	3	2	3	1	2	41	1.7
Other myopathies	-	1	6	4	4	2	2	1	4	3	6	5	5	4	6	6	59	2.5
Hereditary disturbance in tooth structure	-	1	8	20	48	73	311	222	115	3	2	-	-	1	-	-	804	34.1
Total Diagnoses	**11**	**39**	**76**	**105**	**116**	**144**	**371**	**318**	**219**	**108**	**106**	**79**	**88**	**88**	**92**	**395**	**2,355**	**100.0**
Total Cases	**9**	**32**	**63**	**85**	**98**	**129**	**357**	**302**	**202**	**97**	**97**	**76**	**82**	**84**	**82**	**362**	**2,157**	

Table 51

Counts of Individuals Living with "Other" Genetic Conditions by Age Group British Columbia, As of Year-End 2002

22 Fraser North HSDA

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	1	1	1	-	-	1	-	-	-	-	-	-	1	-	-	5	0.1
Acromegaly/gigantism	-	-	2	2	-	-	-	3	3	2	2	-	1	-	1	2	18	0.4
Pituitary dwarfism	-	2	5	1	3	4	4	3	4	7	7	6	2	1	6	8	63	1.3
Hyper/hypo & other pituitary dysfunction	-	-	3	-	3	6	5	7	7	8	9	9	9	6	4	10	86	1.7
Phenylketonuria (PKU)	-	2	6	2	2	1	3	2	1	3	3	1	2	-	-	1	29	0.6
Other dis.of amino-acid trans./metab.	-	4	2	4	2	4	3	5	2	1	2	5	4	-	1	1	40	0.8
Disorders of carbohydrate trans./metab.	3	1	4	8	3	-	4	1	4	1	1	2	3	1	-	5	41	0.8
Disorders of plasma protein metabolism	2	10	4	13	6	1	4	2	4	8	15	8	9	11	10	49	156	3.1
Disordes of mineral metabolism	3	11	15	27	19	12	18	24	18	30	39	35	45	40	50	137	523	10.4
Cystic fibrosis	4	10	5	9	7	3	9	12	5	5	4	4	-	1	1	1	80	1.6
Other and unspecified disorders of metab.	-	2	9	14	9	4	6	4	10	14	14	15	5	10	8	23	147	2.9
Hereditary hemolytic & aplastic anemias	1	15	51	40	26	26	37	62	105	93	70	41	13	13	18	53	664	13.2
Hemophilia and other coagulation defects	1	9	22	16	24	27	36	82	92	68	51	38	45	24	25	108	688	13.7
Huntington's chorea	-	-	-	-	-	-	-	2	2	3	5	4	5	4	2	5	32	0.6
Other extrapyramidal diseases	-	6	7	3	7	17	7	10	22	29	31	16	10	20	12	92	289	5.7
Anterior horn cell diseases (excl. ALS)	-	-	-	1	3	-	-	2	2	-	3	2	-	-	3	7	23	0.5
Hereditary peripheral neuropathy	-	-	6	1	9	8	8	7	7	8	11	17	10	9	13	35	149	3.0
Muscular dystrophy	-	-	2	8	2	4	3	8	6	2	8	6	7	6	3	5	70	1.4
Other myopathies	-	2	13	9	6	3	7	9	8	13	16	8	6	6	5	18	129	2.6
Hereditary disturbance in tooth structure	1	5	15	45	126	157	653	501	285	11	1	-	2	-	1	2	1,805	35.8
Total Diagnoses	**15**	**80**	**172**	**204**	**257**	**277**	**808**	**746**	**587**	**326**	**292**	**217**	**178**	**153**	**163**	**562**	**5,037**	**100.0**
Total Cases	**12**	**69**	**145**	**180**	**221**	**250**	**772**	**704**	**553**	**304**	**267**	**203**	**156**	**148**	**152**	**522**	**4,658**	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 52
Counts of Individuals Living with "Other" Genetic Conditions by Age Group
British Columbia, As of Year-End 2002

23 Fraser South HSDA

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	1	-	1	1	1	-	2	-	-	-	-	-	-	-	-	-	6	0.1
Acromegaly/gigantism	-	-	-	-	1	-	-	1	3	3	5	2	3	1	1	5	25	0.5
Pituitary dwarfism	-	2	5	4	2	4	5	4	3	6	2	3	1	2	5	10	58	1.1
Hyper/hypo & other pituitary dysfunction	-	3	3	2	1	7	5	8	12	17	9	10	8	7	4	11	107	2.0
Phenylketonuria (PKU)	-	1	2	1	1	4	3	1	2	1	1	1	1	1	-	-	20	0.4
Other dis.of amino-acid trans./metab.	-	4	3	1	1	2	1	3	4	-	2	4	-	-	-	2	27	0.5
Disorders of carbohydrate trans./metab.	-	2	4	4	3	2	1	1	1	-	1	1	2	1	1	-	24	0.5
Disorders of plasma protein metabolism	8	15	13	18	9	7	8	10	15	13	19	12	15	7	19	68	256	4.9
Disordes of mineral metabolism	6	29	45	35	22	16	8	31	34	34	60	54	42	35	44	132	627	11.9
Cystic fibrosis	-	20	12	20	14	11	8	12	11	4	5	3	2	-	-	-	122	2.3
Other and unspecified disorders of metab.	1	6	10	15	7	4	7	7	13	13	16	16	5	11	7	31	169	3.2
Hereditary hemolytic & aplastic anemias	3	16	41	46	29	33	64	85	99	70	42	23	21	9	5	40	626	11.9
Hemophilia and other coagulation defects	6	13	27	22	23	30	50	93	94	79	51	49	37	46	47	156	823	15.7
Huntington's chorea	-	-	-	-	-	-	1	-	4	3	1	2	4	3	3	4	25	0.5
Other extrapyramidal diseases	1	4	5	13	12	10	7	8	12	22	13	21	25	19	17	79	268	5.1
Anterior horn cell diseases (excl. ALS)	-	2	-	1	3	1	1	-	1	-	2	1	2	1	2	10	27	0.5
Hereditary peripheral neuropathy	-	-	1	7	4	5	3	10	14	12	10	17	10	8	10	54	165	3.1
Muscular dystrophy	-	5	7	7	3	5	2	5	10	5	9	8	7	1	-	1	75	1.4
Other myopathies	-	4	14	15	6	9	10	9	11	11	12	9	12	5	7	19	153	2.9
Hereditary disturbance in tooth structure	1	16	28	66	108	177	614	370	257	4	2	1	-	-	-	2	1,646	31.4
Total Diagnoses	**27**	**142**	**221**	**278**	**250**	**327**	**800**	**658**	**600**	**297**	**262**	**237**	**197**	**157**	**172**	**624**	**5,249**	**100.0**
Total Cases	**23**	**98**	**178**	**248**	**218**	**295**	**762**	**617**	**569**	**268**	**237**	**219**	**183**	**150**	**159**	**590**	**4,814**	

Table 53
Counts of Individuals Living with "Other" Genetic Conditions by Age Group
British Columbia, As of Year-End 2002

31 Richmond HSDA

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	2	0.1
Acromegaly/gigantism	-	-	-	1	-	-	-	-	-	-	1	2	-	-	-	2	6	0.4
Pituitary dwarfism	-	-	2	1	5	-	-	1	3	2	1	-	2	-	1	4	22	1.4
Hyper/hypo & other pituitary dysfunction	-	-	-	3	4	1	-	1	5	3	3	2	1	2	2	3	30	1.9
Phenylketonuria (PKU)	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	2	0.1
Other dis.of amino-acid trans./metab.	-	1	-	-	1	-	-	1	-	-	-	-	-	-	-	-	3	0.2
Disorders of carbohydrate trans./metab.	-	-	1	3	1	-	1	-	1	1	-	1	-	-	-	-	9	0.6
Disorders of plasma protein metabolism	5	1	3	4	2	1	1	-	1	-	3	2	3	4	5	20	55	3.6
Disordes of mineral metabolism	1	3	8	7	2	1	7	9	9	12	13	9	14	25	7	42	169	10.9
Cystic fibrosis	-	-	2	-	-	1	-	2	1	1	2	-	-	-	1	-	10	0.6
Other and unspecified disorders of metab.	-	3	2	1	1	1	2	3	2	4	2	3	5	2	1	4	36	2.3
Hereditary hemolytic & aplastic anemias	-	10	9	14	21	24	16	39	48	50	28	16	6	5	4	13	303	19.6
Hemophilia and other coagulation defects	-	2	2	3	5	1	8	18	13	15	16	17	11	13	10	73	207	13.4
Huntington's chorea	-	-	-	-	-	-	-	-	-	-	1	3	-	1	1	1	7	0.5
Other extrapyramidal diseases	-	1	4	1	4	3	3	1	6	5	-	3	5	9	5	29	79	5.1
Anterior horn cell diseases (excl. ALS)	-	-	3	-	-	-	1	-	1	-	-	-	-	-	-	1	6	0.4
Hereditary peripheral neuropathy	-	-	-	-	2	2	1	2	-	2	3	2	2	3	6	18	43	2.8
Muscular dystrophy	-	-	1	2	2	2	-	1	4	4	2	1	1	1	-	3	24	1.6
Other myopathies	-	2	2	4	-	1	2	-	3	5	3	3	1	2	-	12	40	2.6
Hereditary disturbance in tooth structure	-	2	2	16	43	78	192	102	56	-	-	-	-	1	-	-	492	31.8
Total Diagnoses	**6**	**25**	**42**	**60**	**93**	**118**	**235**	**180**	**153**	**104**	**78**	**64**	**51**	**68**	**43**	**225**	**1,545**	**100.0**
Total Cases	**5**	**21**	**35**	**53**	**77**	**110**	**230**	**172**	**141**	**94**	**75**	**61**	**49**	**59**	**41**	**207**	**1,430**	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 54

Counts of Individuals Living with "Other" Genetic Conditions by Age Group
British Columbia, As of Year-End 2002

32 Vancouver HSDA

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	3	0.0
Acromegaly/gigantism	-	-	1	1	1	-	1	-	1	2	3	2	2	2	1	6	23	0.4
Pituitary dwarfism	-	4	4	1	6	3	7	1	4	7	6	6	2	4	3	14	72	1.1
Hyper/hypo & other pituitary dysfunction	-	2	3	-	5	4	10	4	10	15	9	12	4	8	3	17	106	1.6
Phenylketonuria (PKU)	-	-	3	2	3	2	1	1	1	1	-	-	-	-	-	-	14	0.2
Other dis.of amino-acid trans./metab.	-	4	2	1	-	2	7	3	1	2	2	6	1	-	1	2	34	0.5
Disorders of carbohydrate trans./metab.	1	4	5	2	1	1	3	1	2	1	-	1	-	-	-	-	22	0.3
Disorders of plasma protein metabolism	10	13	10	4	1	5	3	5	10	13	10	12	14	13	10	73	206	3.2
Disordes of mineral metabolism	9	18	14	15	11	19	24	32	34	60	49	55	68	41	57	243	749	11.6
Cystic fibrosis	-	3	5	3	5	7	10	4	12	6	3	2	1	-	-	-	61	0.9
Other and unspecified disorders of metab.	-	3	7	8	7	9	4	13	14	16	17	23	14	10	9	33	187	2.9
Hereditary hemolytic & aplastic anemias	1	46	61	52	41	50	71	166	224	200	129	56	35	31	32	88	1,283	19.8
Hemophilia and other coagulation defects	2	14	13	27	19	20	33	78	92	79	43	47	26	38	30	111	672	10.4
Huntington's chorea	-	-	-	-	-	1	-	-	1	5	3	10	1	5	3	6	35	0.5
Other extrapyramidal diseases	2	8	7	5	11	8	17	24	45	41	50	46	49	35	33	168	549	8.5
Anterior horn cell diseases (excl. ALS)	1	-	1	6	-	-	5	1	2	6	1	1	1	1	2	5	33	0.5
Hereditary peripheral neuropathy	-	1	1	2	8	4	6	9	11	16	15	19	13	10	17	75	207	3.2
Muscular dystrophy	-	-	2	3	1	2	8	9	4	10	5	9	5	2	3	10	73	1.1
Other myopathies	-	2	7	7	1	6	9	14	17	11	4	16	14	7	9	35	159	2.5
Hereditary disturbance in tooth structure	-	7	10	57	129	158	812	579	224	4	-	3	2	1	-	1	1,987	30.7
Total Diagnoses	**26**	**130**	**157**	**196**	**251**	**301**	**1,031**	**944**	**709**	**495**	**349**	**326**	**252**	**208**	**213**	**887**	**6,475**	**100.0**
Total Cases	**20**	**103**	**135**	**170**	**213**	**276**	**993**	**904**	**657**	**450**	**321**	**297**	**234**	**183**	**196**	**802**	**5,954**	

Table 55

Counts of Individuals Living with "Other" Genetic Conditions by Age Group
British Columbia, As of Year-End 2002

33 North Shore/Coast Garibaldi HSDA

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	0.0
Acromegaly/gigantism	-	-	-	-	-	-	-	1	2	2	1	2	1	-	-	2	11	0.5
Pituitary dwarfism	-	-	1	1	3	2	2	1	2	2	4	-	3	4	2	9	36	1.6
Hyper/hypo & other pituitary dysfunction	-	-	-	2	2	1	-	4	4	3	8	4	3	2	5	6	44	1.9
Phenylketonuria (PKU)	-	2	3	-	-	4	1	1	1	1	-	1	-	-	-	-	14	0.6
Other dis.of amino-acid trans./metab.	-	1	2	2	2	2	1	1	2	2	3	1	-	-	-	1	20	0.9
Disorders of carbohydrate trans./metab.	-	-	-	2	2	1	-	1	1	-	-	-	-	1	-	-	8	0.3
Disorders of plasma protein metabolism	1	3	5	8	4	-	1	-	7	6	3	7	5	7	6	27	90	3.9
Disordes of mineral metabolism	-	3	6	10	8	6	2	11	14	22	20	32	32	26	27	90	311	13.5
Cystic fibrosis	-	4	8	4	2	5	5	4	3	5	-	1	1	1	-	-	43	1.9
Other and unspecified disorders of metab.	-	3	3	5	2	5	2	1	8	12	9	6	8	2	5	7	78	3.4
Hereditary hemolytic & aplastic anemias	-	6	12	12	10	16	12	13	28	19	12	10	4	5	2	25	186	8.1
Hemophilia and other coagulation defects	-	4	7	9	12	7	14	22	44	49	17	9	20	8	15	50	287	12.4
Huntington's chorea	-	-	-	-	-	-	-	-	-	-	3	2	-	1	1	4	11	0.5
Other extrapyramidal diseases	-	3	8	4	2	7	3	4	11	11	9	9	4	8	10	56	149	6.5
Anterior horn cell diseases (excl. ALS)	-	-	-	-	-	-	-	1	1	1	-	-	1	-	-	1	5	0.2
Hereditary peripheral neuropathy	-	1	1	2	4	3	3	1	6	8	8	3	11	12	5	41	109	4.7
Muscular dystrophy	-	2	-	2	-	1	5	5	3	4	2	1	1	-	1	5	32	1.4
Other myopathies	-	1	8	5	2	5	-	2	8	3	5	7	6	3	6	14	75	3.3
Hereditary disturbance in tooth structure	-	4	3	26	60	106	259	192	130	5	5	-	2	2	-	2	796	34.5
Total Diagnoses	**1**	**37**	**69**	**94**	**115**	**171**	**310**	**265**	**275**	**155**	**109**	**95**	**102**	**82**	**85**	**341**	**2,306**	**100.0**
Total Cases	**1**	**30**	**56**	**84**	**103**	**153**	**301**	**260**	**253**	**145**	**95**	**87**	**93**	**75**	**74**	**323**	**2,133**	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 56
Counts of Individuals Living with "Other" Genetic Conditions by Age Group
British Columbia, As of Year-End 2002

41 South Vancouver Island HSDA

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	0.0
Acromegaly/gigantism	-	-	-	-	1	1	-	1	-	-	1	2	3	3	-	1	13	0.3
Pituitary dwarfism	-	3	2	2	9	3	2	6	1	5	4	4	1	4	4	14	64	1.5
Hyper/hypo & other pituitary dysfunction	-	1	-	3	7	5	1	10	6	8	7	7	6	4	6	11	82	2.0
Phenylketonuria (PKU)	2	-	1	-	4	2	-	-	2	-	2	-	1	-	-	2	16	0.4
Other dis.of amino-acid trans./metab.	-	1	3	2	-	3	-	-	-	1	3	1	1	3	-	-	18	0.4
Disorders of carbohydrate trans./metab.	-	2	1	-	1	1	-	2	1	2	1	3	3	2	-	-	19	0.5
Disorders of plasma protein metabolism	4	6	2	5	1	4	1	4	9	7	5	9	10	6	6	55	134	3.2
Disordes of mineral metabolism	3	5	5	12	8	13	12	23	22	28	34	37	33	39	32	183	489	11.8
Cystic fibrosis	1	2	6	10	10	6	7	10	5	3	4	2	-	-	-	-	66	1.6
Other and unspecified disorders of metab.	1	3	2	3	4	9	6	-	6	6	10	9	4	6	5	17	91	2.2
Hereditary hemolytic & aplastic anemias	1	7	8	11	11	5	11	9	14	25	13	14	11	4	8	26	178	4.3
Hemophilia and other coagulation defects	1	4	9	13	8	21	15	28	34	31	25	31	16	14	22	96	368	8.9
Huntington's chorea	-	-	-	-	1	-	-	1	1	5	2	2	3	5	2	1	23	0.6
Other extrapyramidal diseases	-	4	9	8	7	9	7	5	11	13	19	9	18	10	19	81	229	5.5
Anterior horn cell diseases (excl. ALS)	-	-	6	3	1	-	2	1	2	1	-	1	-	1	3	1	22	0.5
Hereditary peripheral neuropathy	-	-	7	3	5	6	-	8	6	7	5	10	9	5	6	37	114	2.8
Muscular dystrophy	-	3	3	1	1	6	7	6	3	3	5	7	1	3	3	3	55	1.3
Other myopathies	-	3	6	4	5	5	6	5	4	10	5	10	10	7	4	11	95	2.3
Hereditary disturbance in tooth structure	-	-	3	13	26	126	990	614	272	15	3	1	-	-	1	2	2,066	49.9
Total Diagnoses	**13**	**44**	**73**	**93**	**110**	**225**	**1,067**	**733**	**399**	**170**	**148**	**159**	**130**	**116**	**122**	**541**	**4,143**	**100.0**
Total Cases	**10**	**36**	**56**	**82**	**98**	**209**	**1,050**	**711**	**388**	**154**	**141**	**146**	**116**	**106**	**117**	**500**	**3,920**	

Table 57
Counts of Individuals Living with "Other" Genetic Conditions by Age Group
British Columbia, As of Year-End 2002

42 Central Vancouver Island HSDA

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acromegaly/gigantism	-	-	1	1	-	1	-	1	1	1	-	1	2	-	1	1	11	0.3
Pituitary dwarfism	3	1	5	2	4	3	1	-	1	3	2	3	4	1	3	5	41	1.2
Hyper/hypo & other pituitary dysfunction	-	-	-	4	1	6	4	6	4	8	6	6	4	2	4	13	68	2.0
Phenylketonuria (PKU)	-	1	4	-	3	1	1	1	1	2	1	-	-	-	-	-	15	0.4
Other dis.of amino-acid trans./metab.	-	1	2	3	-	-	1	1	-	2	1	-	-	-	2	1	14	0.4
Disorders of carbohydrate trans./metab.	-	-	1	1	-	1	3	3	1	1	-	1	1	1	1	1	16	0.5
Disorders of plasma protein metabolism	1	6	4	11	3	5	7	1	7	3	9	6	13	7	8	42	133	3.9
Disordes of mineral metabolism	-	-	8	11	8	5	10	10	8	14	37	32	29	49	32	133	386	11.4
Cystic fibrosis	-	5	5	8	6	2	6	7	1	4	-	-	-	-	-	1	45	1.3
Other and unspecified disorders of metab.	1	2	8	8	6	6	5	7	4	11	14	10	10	6	9	14	121	3.6
Hereditary hemolytic & aplastic anemias	1	4	9	8	13	9	11	7	7	10	11	4	6	6	7	22	135	4.0
Hemophilia and other coagulation defects	1	2	6	10	14	16	19	16	22	39	28	27	20	22	14	71	327	9.6
Huntington's chorea	-	-	-	-	-	-	-	-	-	2	1	1	1	1	2	-	8	0.2
Other extrapyramidal diseases	1	2	6	5	3	4	3	2	7	6	9	5	12	8	13	54	140	4.1
Anterior horn cell diseases (excl. ALS)	-	-	1	1	4	2	2	-	1	1	1	-	1	-	1	3	18	0.5
Hereditary peripheral neuropathy	-	-	1	1	2	4	2	4	3	8	4	7	12	8	6	22	84	2.5
Muscular dystrophy	1	-	2	3	4	4	1	1	3	4	2	1	9	1	-	7	43	1.3
Other myopathies	2	1	4	6	5	-	2	4	6	2	6	8	11	6	2	14	79	2.3
Hereditary disturbance in tooth structure	-	2	5	47	54	156	774	422	203	21	10	8	2	2	1	7	1,714	50.4
Total Diagnoses	**11**	**27**	**72**	**130**	**130**	**225**	**852**	**493**	**280**	**142**	**142**	**120**	**137**	**120**	**106**	**411**	**3,398**	**100.0**
Total Cases	**9**	**23**	**61**	**109**	**117**	**213**	**827**	**482**	**270**	**131**	**124**	**107**	**117**	**105**	**96**	**381**	**3,172**	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 58

Counts of Individuals Living with "Other" Genetic Conditions by Age Group
British Columbia, As of Year-End 2002

43 North Vancouver Island HSDA

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acromegaly/gigantism	-	-	-	-	-	1	-	-	1	2	1	1	1	-	-	1	8	0.4
Pituitary dwarfism	-	1	-	2	4	1	2	1	-	1	3	-	3	1	-	-	19	0.9
Hyper/hypo & other pituitary dysfunction	-	1	-	1	1	2	-	3	2	-	4	-	2	-	3	2	21	1.0
Phenylketonuria (PKU)	-	-	-	1	4	1	-	-	-	-	-	-	1	1	-	-	8	0.4
Other dis.of amino-acid trans./metab.	-	-	1	3	2	-	-	-	1	2	-	-	1	-	-	1	11	0.5
Disorders of carbohydrate trans./metab.	-	-	2	1	-	-	1	-	-	1	-	-	-	-	1	-	6	0.3
Disorders of plasma protein metabolism	1	2	7	4	-	1	2	2	3	3	5	6	4	3	2	21	66	3.1
Disordes of mineral metabolism	-	2	6	6	3	3	6	4	3	11	23	19	18	18	16	39	177	8.3
Cystic fibrosis	-	2	3	6	2	3	-	1	1	1	-	-	-	-	1	-	20	0.9
Other and unspecified disorders of metab.	-	2	4	2	1	4	3	3	4	3	6	6	6	3	2	4	53	2.5
Hereditary hemolytic & aplastic anemias	1	2	7	4	5	5	5	3	3	5	4	6	5	-	1	8	64	3.0
Hemophilia and other coagulation defects	2	2	5	6	6	9	6	19	19	11	15	13	7	11	10	26	167	7.9
Huntington's chorea	-	-	-	1	-	-	-	-	-	1	-	1	1	-	1	2	7	0.3
Other extrapyramidal diseases	-	2	3	2	-	1	4	1	2	3	3	-	2	1	10	13	47	2.2
Anterior horn cell diseases (excl. ALS)	1	-	-	-	-	-	-	-	-	1	-	-	3	-	-	2	7	0.3
Hereditary peripheral neuropathy	-	-	1	-	-	1	-	-	4	3	4	4	4	3	2	17	43	2.0
Muscular dystrophy	-	-	4	3	1	5	2	1	4	-	1	-	1	-	-	-	22	1.0
Other myopathies	-	-	4	3	3	4	1	1	5	2	2	-	3	1	2	3	34	1.6
Hereditary disturbance in tooth structure	-	1	2	15	17	69	515	336	236	92	28	15	3	8	2	8	1,347	63.3
Total Diagnoses	**5**	**17**	**49**	**60**	**49**	**110**	**547**	**375**	**288**	**142**	**99**	**71**	**65**	**50**	**53**	**147**	**2,127**	**100.0**
Total Cases	**3**	**16**	**40**	**49**	**47**	**105**	**535**	**363**	**278**	**137**	**93**	**64**	**60**	**49**	**52**	**133**	**2,024**	

Table 59

Counts of Individuals Living with "Other" Genetic Conditions by Age Group
British Columbia, As of Year-End 2002

51 Northwest HSDA

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	0.1
Acromegaly/gigantism	-	-	-	1	-	-	1	-	-	-	-	-	1	-	-	-	3	0.4
Pituitary dwarfism	-	-	3	-	1	1	1	1	-	2	-	-	2	-	-	-	11	1.4
Hyper/hypo & other pituitary dysfunction	-	-	1	1	2	-	-	2	-	3	1	1	3	2	-	-	16	2.0
Phenylketonuria (PKU)	-	1	1	-	1	-	-	-	-	1	-	-	-	-	-	-	4	0.5
Other dis.of amino-acid trans./metab.	-	-	-	3	-	-	1	-	-	-	-	-	-	-	-	-	4	0.5
Disorders of carbohydrate trans./metab.	-	-	-	-	1	-	-	-	-	1	1	2	-	-	-	-	5	0.6
Disorders of plasma protein metabolism	1	1	1	3	3	-	1	2	1	4	6	1	4	6	7	19	60	7.7
Disordes of mineral metabolism	2	2	3	7	3	3	3	2	8	7	9	15	16	12	10	23	125	15.9
Cystic fibrosis	-	1	2	5	-	3	2	1	2	-	-	-	-	1	-	-	17	2.2
Other and unspecified disorders of metab.	1	3	2	1	-	1	3	-	-	3	5	5	2	2	2	7	37	4.7
Hereditary hemolytic & aplastic anemias	-	1	8	3	2	4	5	6	3	8	3	2	1	2	2	3	53	6.8
Hemophilia and other coagulation defects	-	5	5	-	4	10	8	17	21	17	10	13	9	9	6	28	162	20.7
Huntington's chorea	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	0.1
Other extrapyramidal diseases	-	5	1	1	1	4	-	3	7	2	5	2	4	4	8	22	69	8.8
Anterior horn cell diseases (excl. ALS)	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	1	3	0.4
Hereditary peripheral neuropathy	-	-	-	1	1	1	-	1	-	2	2	2	3	6	3	9	31	4.0
Muscular dystrophy	-	-	-	1	-	1	2	2	-	2	-	2	-	-	-	1	11	1.4
Other myopathies	-	1	2	2	3	1	1	-	4	5	-	-	3	3	-	2	27	3.4
Hereditary disturbance in tooth structure	-	2	5	6	14	9	45	41	16	5	1	-	-	-	-	-	144	18.4
Total Diagnoses	**4**	**22**	**34**	**35**	**36**	**40**	**74**	**78**	**63**	**62**	**43**	**45**	**48**	**47**	**38**	**115**	**784**	**100.0**
Total Cases	**3**	**20**	**30**	**33**	**34**	**34**	**72**	**75**	**56**	**55**	**41**	**41**	**38**	**45**	**30**	**106**	**713**	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 60
Counts of Individuals Living with "Other" Genetic Conditions by Age Group
British Columbia, As of Year-End 2002

52 Northern Interior HSDA

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	-	3	-	1	-	-	-	-	-	-	-	-	-	-	4	0.3
Acromegaly/gigantism	-	-	-	-	-	-	-	-	-	2	1	-	-	-	-	1	4	0.3
Pituitary dwarfism	-	-	4	3	2	3	1	2	-	1	-	2	-	-	1	2	21	1.7
Hyper/hypo & other pituitary dysfunction	-	-	3	1	1	5	2	4	2	3	1	1	3	1	1	2	30	2.4
Phenylketonuria (PKU)	-	-	1	1	-	-	-	1	-	-	-	-	-	-	-	-	3	0.2
Other dis.of amino-acid trans./metab.	-	-	1	-	-	-	-	-	-	1	4	-	-	-	-	-	6	0.5
Disorders of carbohydrate trans./metab.	-	-	2	4	-	1	-	-	1	-	1	1	-	-	-	1	11	0.9
Disorders of plasma protein metabolism	3	8	2	8	3	2	1	-	1	3	7	9	2	4	2	19	74	5.9
Disordes of mineral metabolism	3	5	7	7	12	7	3	10	6	14	19	26	17	19	11	45	211	16.7
Cystic fibrosis	-	4	5	10	4	2	-	3	1	-	-	-	-	-	-	-	29	2.3
Other and unspecified disorders of metab.	-	1	4	6	4	6	3	2	4	6	7	5	7	2	3	3	63	5.0
Hereditary hemolytic & aplastic anemias	-	7	5	6	2	4	3	9	4	9	10	6	3	2	1	7	78	6.2
Hemophilia and other coagulation defects	-	3	8	14	7	9	12	14	12	23	11	11	15	8	16	17	180	14.3
Huntington's chorea	-	-	-	-	-	-	-	-	1	-	-	1	1	-	-	2	5	0.4
Other extrapyramidal diseases	1	-	3	1	3	5	7	5	7	7	10	5	8	4	7	27	100	7.9
Anterior horn cell diseases (excl. ALS)	-	-	-	-	-	1	-	-	-	1	-	-	-	-	1	1	4	0.3
Hereditary peripheral neuropathy	-	1	2	3	1	2	1	2	3	2	2	3	4	1	2	18	47	3.7
Muscular dystrophy	-	1	3	2	4	2	3	1	2	5	1	1	3	1	1	-	30	2.4
Other myopathies	-	1	-	5	4	2	3	2	3	4	3	1	8	3	-	4	43	3.4
Hereditary disturbance in tooth structure	1	3	2	9	21	26	124	69	54	4	2	-	2	-	-	-	317	25.2
Total Diagnoses	**8**	**34**	**52**	**83**	**68**	**78**	**163**	**124**	**101**	**85**	**79**	**72**	**73**	**45**	**46**	**149**	**1,260**	**100.0**
Total Cases	**7**	**28**	**42**	**71**	**63**	**69**	**156**	**122**	**96**	**80**	**68**	**63**	**66**	**41**	**43**	**135**	**1,150**	

Table 61
Counts of Individuals Living with "Other" Genetic Conditions by Age Group
British Columbia, As of Year-End 2002

53 Northeast HSDA

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	0.2
Acromegaly/gigantism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pituitary dwarfism	-	-	-	-	1	1	-	-	1	2	1	-	1	1	1	-	9	1.7
Hyper/hypo & other pituitary dysfunction	-	-	-	-	-	-	1	2	1	2	2	-	1	-	-	1	10	1.9
Phenylketonuria (PKU)	-	3	-	-	-	2	-	-	-	-	-	-	-	-	-	-	5	0.9
Other dis.of amino-acid trans./metab.	-	-	-	-	2	1	-	-	-	1	2	-	-	-	-	-	6	1.1
Disorders of carbohydrate trans./metab.	-	-	-	2	-	-	-	-	-	-	1	-	-	1	2	-	6	1.1
Disorders of plasma protein metabolism	-	1	2	1	-	1	-	-	1	5	4	4	5	6	3	5	38	7.1
Disordes of mineral metabolism	-	1	-	2	3	1	1	3	2	4	8	7	6	9	6	18	71	13.3
Cystic fibrosis	1	-	-	1	1	1	1	6	-	1	-	-	1	1	-	-	14	2.6
Other and unspecified disorders of metab.	-	1	2	-	1	1	3	1	-	-	1	-	1	-	1	2	14	2.6
Hereditary hemolytic & aplastic anemias	-	1	-	-	1	3	2	-	1	6	1	2	1	2	2	8	31	5.8
Hemophilia and other coagulation defects	1	1	1	1	4	9	4	6	3	5	14	1	4	6	3	18	81	15.2
Huntington's chorea	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	0.2
Other extrapyramidal diseases	-	-	1	2	2	4	2	7	2	1	5	2	3	-	2	2	35	6.6
Anterior horn cell diseases (excl. ALS)	-	-	-	-	-	-	4	-	-	-	-	1	-	-	-	-	5	0.9
Hereditary peripheral neuropathy	-	-	-	-	1	2	-	1	2	2	-	4	-	2	1	6	21	3.9
Muscular dystrophy	-	-	1	-	-	-	1	1	1	1	-	2	-	2	1	-	10	1.9
Other myopathies	1	-	1	2	2	-	-	-	-	2	3	1	1	2	2	2	19	3.6
Hereditary disturbance in tooth structure	-	-	1	5	5	9	63	36	26	5	3	2	-	-	-	-	155	29.1
Total Diagnoses	**3**	**8**	**9**	**16**	**23**	**35**	**82**	**64**	**41**	**37**	**45**	**26**	**24**	**32**	**24**	**63**	**532**	**100.0**
Total Cases	**3**	**6**	**7**	**16**	**19**	**31**	**78**	**61**	**40**	**33**	**35**	**23**	**20**	**27**	**24**	**59**	**482**	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Section 5: Selected Chronic Disabilities and Handicapping Conditions

Introduction

This section of the report provides information on the prevalence of selected chronic disabilities and handicapping conditions in children as of year-end, 2002. These conditions, which generally manifest in childhood, are now only reported to the HSR for individuals aged 19 years old or younger. In contrast to the conditions shown in the previous sections of this report, many of the disabilities presented here do not have a defined genetic basis; they are either descriptive of a physical handicap or a childhood disease. It should be noted, however, that some of the conditions presented in this section do result from congenital anomalies or genetic conditions. This means, for example, that counts for mental retardation will include individuals with Down's or other syndromes where mental retardation is a factor. Similarly, the categories of vision impairment include cases with congenital anomalies of the eye that cause functional disability, as well as visual impairments caused by cancer, infection, or injury.

The selected chronic disabilities and handicapping conditions include some that affect vision, hearing, speech, or mobility, as well as broader conditions such as cerebral degenerations. The amount of impairment can range from very slight to extremely severe for any of these handicapping conditions. The conditions include:

- retinoblastoma (a tumour originating in the retina of the eye)
- hemangioma and lymphangioma (specific types of tumours)
- neurofibromatosis and Von Recklinghausen' s disease (marked by the formation of soft tumours over the entire body)
- diabetes mellitus
- disorders of adrenal glands
- Tourette's syndrome
- hyperkinetic syndrome
- stuttering and specific developmental delays (including dyslexia and specific difficulties in spelling or arithmetic)
- mental retardation
- childhood cerebral degenerations and acquired hydrocephalus (accumulation of fluid in the brain)
- infantile cerebral palsy
- hemiplegia
- quadriplegia
- paraplegia
- other paralytic syndromes
- epilepsy
- retrolental fibroplasia (a condition characterized by growth of tissue behind the lens of the eye due to excessively high concentrations of oxygen in the care of premature infants)
- blindness, strabismus, and other visual impairments
- abnormal auditory perception and deafness
- juvenile rheumatoid arthritis
- disorders of muscle, ligament and fascia
- osteochondropathies (diseases involving conversion of cartilage into bone or the abnormal formation of bone)
- other acquired deformities of limbs (including traumatic amputations)
- curvature of the spine

The tables in this section provide prevalence counts for selected chronic disabilities and handicapping conditions in children (age less than 20 years old) as of year-end, 2002, as reported to the HSR. Table 62 provides counts by age group and gender at the provincial level. Tables providing the same information for each HA and HSDA follow. Counts could not be provided by local health area because of the small numbers of chronic disabilities and handicapping conditions in children at the HSDA level. Geographic assignment was based on the address from the last contact with an HSR reporting source; individuals who had died were excluded. If an individual had more than one chronic disability or handicapping conditions within a category, they were only counted once for that category. However, individuals with chronic disabilities and handicapping conditions in more than one category were counted in each category.

The reader is reminded that tables in this section reflect the information reported to the HSR and should not be interpreted as complete provincial or regional statistics. The Health Status Registry needs to receive registrations from sources providing health services to children to get information on the prevalence of disabilities in the province. Chronic disabilities and handicapping conditions that are not brought to the attention of reporting sources will have poor ascertainment (serious under-reporting). The reader can refer to Table 1 for a list of sources and the number of diagnoses they reported to the HSR over the last five years.

The reader is also reminded that variability in the level of reporting will contribute to differences at the sub provincial level. Additional caveats affecting the data can be found in the Guide to Data Interpretation in the General Information section at the beginning of this report. Appendix I provides ICD codes for chronic disabilities and handicapping conditions shown in this section of the report.

In 2002 the Health Status Registry began to collect data regarding diagnosed Autism Spectrum Disorder cases in the Province. The British Columbia Vital Statistics Agency is in the process of developing reporting sources throughout British Columbia that will provide the required data.

Highlights

There were 26,374 children (14,611 males and 11,569 females) with one or more of the selected chronic disabilities or handicapping conditions living in British Columbia at year-end, 2002. These children accounted for a total of 40,734 diagnoses.

More than a third (38.2%) of the reported diagnoses of selected chronic disabilities or handicapping conditions were in children between 15 and 19 years of age, and nearly a third (31.8%) were 10 to 14 years old. The small number of infants (less than one year of age) with the selected chronic disabilities and handicapping conditions (1.1%) reflects the tendency for diagnosis of many of these conditions to be delayed until later in childhood.

Gender differences can be seen in the reporting of several chronic disabilities and handicapping conditions. Diagnoses of retinoblastoma, Tourette's syndrome, hyperkinetic syndrome, developmental delays, quadriplegia, paraplegia, and osteochondropathies were more common in boys (who accounted for 60.8%, 85.0%, 79.2%, 63.2%, 60.6%, 63.7%, and 65.7% of these diagnoses respectively) while diagnoses of rheumatoid arthritis and curvature of the spine were more common in girls (accounting for 60.2% and 66.1% of these diagnoses).

Blindness and visual impairments other than retrolental fibroplasia were the handicapping conditions most frequently reported to the HSR with 11,127 diagnoses accounting for more than a quarter (27.3%) of the chronic disabilities and handicapping conditions in children. The HA with the most diagnoses was 02 Fraser (with 4,523); 23 Fraser South and 22 Fraser North were the HSDAs with the largest numbers of blindness and visual impairments reported in children (with 2,058 and 1,592 diagnoses respectively).

Epilepsy was the second most frequently reported condition with 5,857 diagnoses in children accounting for 14.4% of the chronic disabilities and handicapping conditions. The HA with the most diagnoses of epilepsy in children was 02 Fraser (with 2,045); 23 Fraser South, 32 Vancouver, and 22 Fraser North were the HSDAs with the largest number of epilepsy diagnoses (with 918, 744, and 691 respectively).

Developmental delays were the third most frequently reported group of childhood chronic disabilities and handicapping conditions, with 4,742 diagnoses. HAs 02 Fraser (with 1,498 diagnoses), and 04 Vancouver Island (with 1,037), and 03 Vancouver Coastal (1,069) each had more than a thousand diagnoses of developmental delays. HSDAs 23 Fraser South (with 709 diagnoses), 32 Vancouver (with 583), 41 South Vancouver Island (577), and 22 Fraser North (501) each had more than five hundred diagnoses of developmental delays.

Other groups of chronic disabilities and handicapping conditions with more than a thousand diagnoses in children were hyperkinetic syndrome (with 2,596 diagnoses), abnormal auditory perception and deafness (2,420 diagnoses), diabetes mellitus (2,052), infantile cerebral palsy (2,016), mental retardation (1,871), hemangioma and lymphangioma (1,538), and other acquired deformities of limbs (1,215).

Table 62

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 2002
Provincial Total

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Retinoblastoma	M	1	5	8	10	7	31	0.1
	F	-	3	4	8	5	20	0.0
	T	1	8	12	18	12	51	0.1
Hemangioma and lymphangiona	M	15	111	169	171	228	694	1.7
	F	21	191	188	200	235	835	2.0
	T	36	308	359	372	463	1,538	3.8
Neurofibromatosis/ von Recklinghausen's	M	-	8	18	27	15	68	0.2
	F	1	6	18	17	26	68	0.2
	T	1	14	39	51	47	152	0.4
Diabetes mellitus	M	1	54	210	320	495	1,080	2.7
	F	-	45	174	285	463	967	2.4
	T	1	99	388	606	958	2,052	5.0
Disorders of adrenal glands	M	3	8	23	40	40	114	0.3
	F	1	19	21	26	38	105	0.3
	T	4	28	44	66	78	220	0.5
Tourette's syndrome	M	-	-	35	139	166	340	0.8
	F	-	-	3	23	33	59	0.1
	T	-	-	38	163	199	400	1.0
Hyperkinetic syndrome	M	-	12	183	770	1,091	2,056	5.0
	F	-	2	31	181	314	528	1.3
	T	-	14	216	955	1,411	2,596	6.4
Developmental delays	M	2	157	521	1,072	1,245	2,997	7.4
	F	7	76	308	555	678	1,624	4.0
	T	9	233	877	1,681	1,942	4,742	11.6
Mental retardation	M	39	168	228	256	336	1,027	2.5
	F	22	110	153	211	306	802	2.0
	T	64	287	399	471	650	1,871	4.6
Childhood cerebral degenerations and acquired hydrocephalus	M	5	75	133	116	104	433	1.1
	F	12	37	91	75	104	319	0.8
	T	17	112	225	192	208	754	1.9
Infantile cerebral palsy	M	3	73	244	343	428	1,091	2.7
	F	2	62	179	336	338	917	2.3
	T	5	137	428	679	767	2,016	4.9
Hemiplegia	M	2	16	58	94	107	277	0.7
	F	2	14	45	90	87	238	0.6
	T	4	30	105	184	195	518	1.3
Quadriplegia	M	1	4	12	24	36	77	0.2
	F	1	4	10	17	18	50	0.1
	T	2	8	22	41	54	127	0.3
Paraplegia	M	1	4	4	12	37	58	0.1
	F	-	-	4	10	19	33	0.1
	T	1	4	8	22	56	91	0.2
Other paralytic syndromes	M	2	9	50	72	100	233	0.6
	F	1	9	55	75	99	239	0.6
	T	3	18	107	147	199	474	1.2
Epilepsy	M	29	354	725	896	1,122	3,126	7.7
	F	39	341	636	748	947	2,711	6.7
	T	68	696	1,371	1,649	2,073	5,857	14.4
Retrolental fibroplasia	M	35	60	38	49	66	248	0.6
	F	34	42	39	60	66	241	0.6
	T	69	102	77	109	132	489	1.2
All other visual impairments/ blindness	M	52	429	1,275	1,948	1,924	5,628	13.8
	F	51	389	1,273	1,990	1,753	5,456	13.4
	T	103	818	2,558	3,951	3,697	11,127	27.3
Abnormal auditory perception and deafness	M	9	75	287	453	542	1,366	3.4
	F	11	53	179	349	442	1,034	2.5
	T	20	130	471	807	992	2,420	5.9
Rheumatoid arthritis	M	-	-	16	38	79	133	0.3
	F	-	9	28	69	95	201	0.5
	T	-	9	44	107	174	334	0.8
Disorders of muscle, ligament and fascia	M	-	5	51	62	120	238	0.6
	F	-	6	26	57	99	188	0.5
	T	-	12	77	119	220	428	1.1
Osteochondropathies	M	-	2	42	98	241	383	0.9
	F	-	-	16	60	124	200	0.5
	T	-	2	58	158	365	583	1.4
Other acquired deformities of limbs	M	-	9	83	217	367	676	1.7
	F	1	14	69	188	261	533	1.3
	T	1	23	155	406	630	1,215	3.0
Curvature of spine	M	1	10	34	66	118	229	0.6
	F	3	4	37	117	288	449	1.1
	T	4	14	72	183	406	679	1.7
Total Diagnoses	**M**	201	1,648	4,447	7,293	9,014	22,603	55.5
	F	209	1,436	3,587	5,747	6,838	17,817	43.7
	T	**413**	**3,106**	**8,150**	**13,137**	**15,928**	**40,734**	**100.0**
Total Cases	**M**	143	1,160	2,964	4,685	5,659	14,611	
	F	135	1,038	2,369	3,640	4,387	11,569	
	T	**281**	**2,216**	**5,406**	**8,392**	**10,079**	**26,374**	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than oncategory, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 63

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 2002
01 Interior Health Authority

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Retinoblastoma	M	-	-	-	-	2	2	0.0
	F	-	1	2	-	-	3	0.0
	T	-	1	2	-	2	5	0.1
Hemangioma and lymphangioma	M	1	19	24	37	38	119	1.7
	F	4	41	36	21	58	160	2.3
	T	5	61	60	59	96	281	4.1
Neurofibromatosis/ von Recklinghausen's	M	-	1	4	5	3	13	0.2
	F	-	-	3	1	5	9	0.1
	T	-	1	7	7	9	24	0.3
Diabetes mellitus	M	-	12	42	77	103	234	3.4
	F	-	8	46	59	96	209	3.0
	T	-	20	92	136	199	447	6.5
Disorders of adrenal glands	M	-	1	6	9	9	25	0.4
	F	-	4	6	4	10	24	0.3
	T	-	5	12	13	19	49	0.7
Tourette's syndrome	M	-	-	7	43	50	100	1.5
	F	-	-	-	6	6	12	0.2
	T	-	-	7	50	56	113	1.6
Hyperkinetic syndrome	M	-	1	34	160	254	449	6.5
	F	-	-	8	35	96	139	2.0
	T	-	1	42	195	351	589	8.5
Developmental delays	M	-	16	71	134	183	404	5.9
	F	1	6	41	58	121	227	3.3
	T	1	22	121	201	307	652	9.5
Mental retardation	M	8	16	34	31	59	148	2.1
	F	2	12	29	40	51	134	1.9
	T	10	28	64	71	113	286	4.1
Childhood cerebral degenerations and acquired hydrocephalus	M	-	12	24	15	20	71	1.0
	F	1	11	15	11	27	65	0.9
	T	1	23	39	26	47	136	2.0
Infantile cerebral palsy	M	-	11	49	48	64	172	2.5
	F	-	9	27	62	72	170	2.5
	T	-	20	76	110	136	342	5.0
Hemiplegia	M	1	3	7	10	22	43	0.6
	F	-	2	8	11	15	36	0.5
	T	1	5	15	21	37	79	1.1
Quadriplegia	M	-	2	1	4	6	13	0.2
	F	1	-	2	1	5	9	0.1
	T	1	2	3	5	11	22	0.3
Paraplegia	M	1	-	1	1	12	15	0.2
	F	-	-	-	1	3	4	0.1
	T	1	-	1	2	15	19	0.3
Other paralytic syndromes	M	1	1	12	10	21	45	0.7
	F	-	4	7	13	19	43	0.6
	T	1	5	19	23	40	88	1.3
Epilepsy	M	7	73	118	139	179	516	7.5
	F	2	51	113	118	157	441	6.4
	T	9	124	233	259	337	962	14.0
Retrolental fibroplasia	M	1	6	2	6	10	25	0.4
	F	6	3	6	4	8	27	0.4
	T	7	9	8	10	18	52	0.8
All other visual impairments/ blindness	M	5	50	192	329	304	880	12.8
	F	9	50	198	335	262	854	12.4
	T	14	100	391	665	566	1,736	25.2
Abnormal auditory perception and deafness	M	1	11	29	68	146	255	3.7
	F	2	11	17	42	114	186	2.7
	T	3	22	46	111	264	446	6.5
Rheumatoid arthritis	M	-	-	5	5	13	23	0.3
	F	-	-	6	15	17	38	0.6
	T	-	-	11	20	30	61	0.9
Disorders of muscle, ligament and fascia	M	-	1	9	7	31	48	0.7
	F	-	-	1	7	21	29	0.4
	T	-	1	10	14	53	78	1.1
Osteochondropathies	M	-	-	6	13	41	60	0.9
	F	-	-	3	10	30	43	0.6
	T	-	-	9	23	71	103	1.5
Other acquired deformities of limbs	M	-	-	16	31	55	102	1.5
	F	-	-	3	27	58	88	1.3
	T	-	-	19	58	114	191	2.8
Curvature of spine	M	-	2	10	9	32	53	0.8
	F	2	-	7	16	57	82	1.2
	T	2	2	17	25	89	135	2.0
Total Diagnoses	**M**	26	238	703	1,191	1,657	3,815	55.3
	F	30	213	584	897	1,308	3,032	44.0
	T	56	452	1,304	2,104	2,980	6,896	100.0
Total Cases	**M**	23	162	459	797	1,090	2,531	
	F	20	167	398	590	851	2,026	
	T	43	330	867	1,399	1,948	4,587	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 64

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 2002
02 Fraser Health Authority

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Retinoblastoma	M	-	3	5	4	1	13	0.1
	F	-	-	1	3	-	4	0.0
	T	-	3	6	7	1	17	0.1
Hemangioma and lymphangioma	M	6	38	58	60	83	245	1.7
	F	10	61	73	80	60	284	1.9
	T	16	101	131	140	143	531	3.6
Neurofibromatosis/ von Recklinghausen's	M	-	2	5	13	5	25	0.2
	F	-	-	5	5	10	20	0.1
	T	-	2	12	21	17	52	0.4
Diabetes mellitus	M	-	23	78	110	169	380	2.6
	F	-	21	49	96	154	320	2.2
	T	-	44	127	207	323	701	4.8
Disorders of adrenal glands	M	1	1	12	15	16	45	0.3
	F	-	13	7	11	9	40	0.3
	T	1	14	19	26	25	85	0.6
Tourette's syndrome	M	-	-	10	36	40	86	0.6
	F	-	-	1	8	10	19	0.1
	T	-	-	11	44	50	105	0.7
Hyperkinetic syndrome	M	-	6	45	210	295	556	3.8
	F	-	-	10	54	85	149	1.0
	T	-	6	56	266	384	712	4.9
Developmental delays	M	1	63	175	337	342	918	6.3
	F	4	30	104	197	194	529	3.6
	T	5	93	301	554	545	1,498	10.3
Mental retardation	M	15	70	77	89	99	350	2.4
	F	11	48	50	60	106	275	1.9
	T	28	121	135	152	207	643	4.4
Childhood cerebral degenerations and acquired hydrocephalus	M	3	30	46	45	38	162	1.1
	F	6	7	30	24	36	103	0.7
	T	9	37	77	70	74	267	1.8
Infantile cerebral palsy	M	-	34	89	137	141	401	2.8
	F	1	25	53	127	100	306	2.1
	T	1	59	145	264	241	710	4.9
Hemiplegia	M	1	5	21	42	33	102	0.7
	F	-	6	17	40	35	98	0.7
	T	1	11	38	82	68	200	1.4
Quadriplegia	M	-	2	6	9	12	29	0.2
	F	-	1	1	10	1	13	0.1
	T	-	3	7	19	13	42	0.3
Paraplegia	M	-	1	1	3	10	15	0.1
	F	-	-	-	4	5	9	0.1
	T	-	1	1	7	15	24	0.2
Other paralytic syndromes	M	1	1	18	29	38	87	0.6
	F	-	2	23	36	29	90	0.6
	T	1	3	42	65	67	178	1.2
Epilepsy	M	5	123	259	345	375	1,107	7.6
	F	14	133	211	262	308	928	6.4
	T	19	256	475	610	685	2,045	14.0
Retrolental fibroplasia	M	15	17	15	14	20	81	0.6
	F	12	16	14	26	30	98	0.7
	T	27	33	29	40	50	179	1.2
All other visual impairments/ blindness	M	21	183	504	782	716	2,206	15.1
	F	16	182	542	806	762	2,308	15.8
	T	37	365	1,050	1,588	1,483	4,523	31.0
Abnormal auditory perception and deafness	M	2	27	102	175	191	497	3.4
	F	4	24	60	150	147	385	2.6
	T	6	51	164	328	341	890	6.1
Rheumatoid arthritis	M	-	-	3	8	25	36	0.2
	F	-	1	8	21	33	63	0.4
	T	-	1	11	29	58	99	0.7
Disorders of muscle, ligament and fascia	M	-	1	21	27	40	89	0.6
	F	-	1	11	24	33	69	0.5
	T	-	2	32	51	73	158	1.1
Osteochondropathies	M	-	1	19	44	80	144	1.0
	F	-	-	6	25	46	77	0.5
	T	-	1	25	69	126	221	1.5
Other acquired deformities of limbs	M	-	3	26	76	125	230	1.6
	F	1	8	23	84	76	192	1.3
	T	1	11	49	160	201	422	2.9
Curvature of spine	M	-	5	16	29	40	90	0.6
	F	-	1	10	52	113	176	1.2
	T	-	6	26	81	153	266	1.8
Total Diagnoses	**M**	71	639	1,611	2,639	2,934	7,894	54.2
	F	79	580	1,309	2,205	2,382	6,555	45.0
	T	152	1,224	2,969	4,880	5,343	14,568	100.0
Total Cases	**M**	49	436	1,076	1,669	1,886	5,116	
	F	54	399	882	1,354	1,542	4,231	
	T	105	840	1,991	3,045	3,442	9,423	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than oncategory, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 65

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 2002
03 Vancouver Coastal Health Authority

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Retinoblastoma	M	-	1	2	1	1	5	0.1
	F	-	1	-	2	1	4	0.1
	T	-	2	2	3	2	9	0.1
Hemangioma and lymphangiona	M	3	32	42	35	41	153	2.0
	F	3	49	43	48	62	205	2.7
	T	6	82	86	83	103	360	4.7
Neurofibromatosis/ von Recklinghausen's	M	-	-	4	3	4	11	0.1
	F	-	1	4	4	6	15	0.2
	T	-	1	9	7	12	29	0.4
Diabetes mellitus	M	-	3	24	49	85	161	2.1
	F	-	7	34	33	72	146	1.9
	T	-	10	58	82	157	307	4.0
Disorders of adrenal glands	M	-	3	3	7	5	18	0.2
	F	1	1	3	4	7	16	0.2
	T	1	4	6	11	12	34	0.4
Tourette's syndrome	M	-	-	5	17	29	51	0.7
	F	-	-	-	2	7	9	0.1
	T	-	-	5	19	36	60	0.8
Hyperkinetic syndrome	M	-	3	40	108	142	293	3.8
	F	-	-	6	23	42	71	0.9
	T	-	3	47	132	185	367	4.8
Developmental delays	M	1	49	126	216	269	661	8.6
	F	-	20	70	112	140	342	4.4
	T	1	69	209	344	414	1,037	13.4
Mental retardation	M	9	52	55	56	61	233	3.0
	F	4	18	37	39	62	160	2.1
	T	14	76	99	96	126	411	5.3
Childhood cerebral degenerations and acquired hydrocephalus	M	2	13	25	22	21	83	1.1
	F	2	8	18	13	19	60	0.8
	T	4	21	43	35	40	143	1.9
Infantile cerebral palsy	M	2	5	39	59	77	182	2.4
	F	-	9	29	48	52	138	1.8
	T	2	16	69	107	130	324	4.2
Hemiplegia	M	-	7	10	20	26	63	0.8
	F	-	3	11	20	11	45	0.6
	T	-	10	21	40	38	109	1.4
Quadriplegia	M	1	-	3	4	7	15	0.2
	F	-	2	2	3	3	10	0.1
	T	1	2	5	7	10	25	0.3
Paraplegia	M	-	1	1	2	5	9	0.1
	F	-	-	-	1	4	5	0.1
	T	-	1	1	3	9	14	0.2
Other paralytic syndromes	M	-	2	9	14	16	41	0.5
	F	-	2	10	9	25	46	0.6
	T	-	4	20	23	41	88	1.1
Epilepsy	M	7	70	160	190	270	697	9.0
	F	6	81	145	166	238	636	8.2
	T	13	152	308	356	509	1,338	17.4
Retrolental fibroplasia	M	11	10	4	7	17	49	0.6
	F	6	12	4	6	7	35	0.5
	T	17	22	8	13	24	84	1.1
All other visual impairments/ blindness	M	15	83	269	356	348	1,071	13.9
	F	11	77	227	376	268	959	12.4
	T	26	160	501	735	629	2,051	26.6
Abnormal auditory perception and deafness	M	1	13	50	66	73	203	2.6
	F	1	7	27	48	56	139	1.8
	T	2	22	80	115	130	349	4.5
Rheumatoid arthritis	M	-	-	2	7	18	27	0.4
	F	-	2	5	9	17	33	0.4
	T	-	2	7	16	35	60	0.8
Disorders of muscle, ligament and fascia	M	-	-	8	6	14	28	0.4
	F	-	2	7	10	13	32	0.4
	T	-	2	15	16	27	60	0.8
Osteochondropathies	M	-	-	9	11	46	66	0.9
	F	-	-	5	5	17	27	0.4
	T	-	-	14	16	63	93	1.2
Other acquired deformities of limbs	M	-	1	18	50	68	137	1.8
	F	-	3	19	29	52	103	1.3
	T	-	4	39	80	121	244	3.2
Curvature of spine	M	1	-	6	10	19	36	0.5
	F	1	1	7	16	53	78	1.0
	T	2	1	14	26	72	115	1.5
Total Diagnoses	**M**	53	348	914	1,316	1,662	4,293	55.7
	F	35	306	713	1,026	1,234	3,314	43.0
	T	89	666	1,666	2,365	2,925	7,711	100.0
Total Cases	**M**	36	265	599	824	1,023	2,747	
	F	23	231	473	653	804	2,184	
	T	60	504	1,094	1,496	1,836	4,990	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 66

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 2002
04 Vancouver Island Health Authority

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Retinoblastoma	M	1	1	1	3	3	9	0.1
	F	-	1	-	2	3	6	0.1
	T	1	2	1	5	6	15	0.2
Hemangioma and lymphangiona	M	3	13	28	25	45	114	1.5
	F	1	32	20	33	35	121	1.6
	T	4	46	48	58	80	236	3.1
Neurofibromatosis/ von Recklinghausen's	M	-	5	3	4	1	13	0.2
	F	1	2	6	3	4	16	0.2
	T	1	7	9	9	6	32	0.4
Diabetes mellitus	M	1	14	47	63	86	211	2.7
	F	-	7	32	61	99	199	2.6
	T	1	21	79	124	185	410	5.3
Disorders of adrenal glands	M	2	2	-	6	4	14	0.2
	F	-	-	2	5	5	12	0.2
	T	2	2	2	11	9	26	0.3
Tourette's syndrome	M	-	-	11	29	33	73	0.9
	F	-	-	2	5	7	14	0.2
	T	-	-	13	34	40	87	1.1
Hyperkinetic syndrome	M	-	2	51	208	296	557	7.2
	F	-	1	5	49	64	119	1.5
	T	-	3	56	257	360	676	8.8
Developmental delays	M	-	16	102	243	334	695	9.0
	F	1	8	57	116	185	367	4.8
	T	1	24	160	364	520	1,069	13.9
Mental retardation	M	5	22	41	42	68	178	2.3
	F	4	23	25	39	54	145	1.9
	T	9	45	66	81	122	323	4.2
Childhood cerebral degenerations and	M	-	16	29	23	13	81	1.1
acquired hydrocephalus	F	3	3	20	22	19	67	0.9
	T	3	19	49	45	32	148	1.9
Infantile cerebral palsy	M	-	15	41	70	97	223	2.9
	F	-	6	49	67	81	203	2.6
	T	-	21	90	137	178	426	5.5
Hemiplegia	M	-	1	16	9	18	44	0.6
	F	2	1	5	17	21	46	0.6
	T	2	2	21	26	39	90	1.2
Quadriplegia	M	-	-	1	4	9	14	0.2
	F	-	1	2	2	7	12	0.2
	T	-	1	3	6	16	26	0.3
Paraplegia	M	-	2	-	3	9	14	0.2
	F	-	-	4	2	7	13	0.2
	T	-	2	4	5	16	27	0.4
Other paralytic syndromes	M	-	4	6	13	21	44	0.6
	F	1	-	9	11	21	42	0.5
	T	1	4	15	24	42	86	1.1
Epilepsy	M	4	47	119	130	200	500	6.5
	F	15	41	104	152	152	464	6.0
	T	19	88	223	282	352	964	12.5
Retrolental fibroplasia	M	6	22	13	19	13	73	0.9
	F	7	10	8	21	13	59	0.8
	T	13	32	21	40	26	132	1.7
All other visual impairments/ blindness	M	7	79	211	299	355	951	12.3
	F	8	58	191	335	314	906	11.7
	T	15	137	402	637	671	1,862	24.1
Abnormal auditory perception and deafness	M	3	15	73	100	79	270	3.5
	F	4	8	48	73	93	226	2.9
	T	7	23	121	173	172	496	6.4
Rheumatoid arthritis	M	-	-	3	13	13	29	0.4
	F	-	3	4	20	23	50	0.6
	T	-	3	7	33	36	79	1.0
Disorders of muscle, ligament and fascia	M	-	1	10	12	18	41	0.5
	F	-	1	3	12	19	35	0.5
	T	-	3	13	24	37	77	1.0
Osteochondropathies	M	-	1	4	14	47	66	0.9
	F	-	-	2	14	17	33	0.4
	T	-	1	6	28	64	99	1.3
Other acquired deformities of limbs	M	-	1	11	41	69	122	1.6
	F	-	3	12	28	40	83	1.1
	T	-	4	23	69	109	205	2.7
Curvature of spine	M	-	3	2	10	18	33	0.4
	F	-	1	10	25	53	89	1.2
	T	-	4	12	35	71	122	1.6
Total Diagnoses	**M**	32	282	823	1,383	1,849	4,369	56.6
	F	47	210	620	1,114	1,336	3,327	43.1
	T	79	494	1,444	2,507	3,189	7,713	100.0
Total Cases	**M**	24	189	557	887	1,092	2,749	
	F	25	159	389	708	811	2,092	
	T	49	350	947	1,603	1,905	4,854	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than oncategory, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 67

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 2002
05 Northern Health Authority

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Retinoblastoma	M	-	-	-	2	-	2	0.1
	F	-	-	1	1	1	3	0.1
	T	-	-	1	3	1	5	0.1
Hemangioma and lymphangiona	M	2	9	17	14	21	63	1.6
	F	3	8	16	18	20	65	1.7
	T	5	18	34	32	41	130	3.4
Neurofibromatosis/ von Recklinghausen's	M	-	-	2	2	2	6	0.2
	F	-	3	-	4	1	8	0.2
	T	-	3	2	7	3	15	0.4
Diabetes mellitus	M	-	2	19	21	52	94	2.4
	F	-	2	13	36	42	93	2.4
	T	-	4	32	57	94	187	4.9
Disorders of adrenal glands	M	-	1	2	3	6	12	0.3
	F	-	1	3	2	7	13	0.3
	T	-	3	5	5	13	26	0.7
Tourette's syndrome	M	-	-	2	14	14	30	0.8
	F	-	-	-	2	3	5	0.1
	T	-	-	2	16	17	35	0.9
Hyperkinetic syndrome	M	-	-	13	84	104	201	5.2
	F	-	1	2	20	27	50	1.3
	T	-	1	15	105	131	252	6.6
Developmental delays	M	-	13	47	142	117	319	8.3
	F	1	12	36	72	38	159	4.1
	T	1	25	86	218	156	486	12.6
Mental retardation	M	2	8	21	38	49	118	3.1
	F	1	9	12	33	33	88	2.3
	T	3	17	35	71	82	208	5.4
Childhood cerebral degenerations and acquired hydrocephalus	M	-	4	9	11	12	36	0.9
	F	-	8	8	5	3	24	0.6
	T	-	12	17	16	15	60	1.6
Infantile cerebral palsy	M	1	8	26	29	49	113	2.9
	F	1	13	21	32	33	100	2.6
	T	2	21	48	61	82	214	5.6
Hemiplegia	M	-	-	4	13	8	25	0.7
	F	-	2	4	2	5	13	0.3
	T	-	2	10	15	13	40	1.0
Quadriplegia	M	-	-	1	3	2	6	0.2
	F	-	-	3	1	2	6	0.2
	T	-	-	4	4	4	12	0.3
Paraplegia	M	-	-	1	3	1	5	0.1
	F	-	-	-	2	-	2	0.1
	T	-	-	1	5	1	7	0.2
Other paralytic syndromes	M	-	1	5	6	4	16	0.4
	F	-	1	6	6	5	18	0.5
	T	-	2	11	12	9	34	0.9
Epilepsy	M	6	41	69	92	98	306	8.0
	F	2	35	63	50	92	242	6.3
	T	8	76	132	142	190	548	14.2
Retrolental fibroplasia	M	2	5	4	3	6	20	0.5
	F	3	1	7	3	8	22	0.6
	T	5	6	11	6	14	42	1.1
All other visual impairments/ blindness	M	4	34	99	182	201	520	13.5
	F	7	22	115	138	147	429	11.2
	T	11	56	214	326	348	955	24.8
Abnormal auditory perception and deafness	M	2	9	33	44	53	141	3.7
	F	-	3	27	36	32	98	2.5
	T	2	12	60	80	85	239	6.2
Rheumatoid arthritis	M	-	-	3	5	10	18	0.5
	F	-	3	5	4	5	17	0.4
	T	-	3	8	9	15	35	0.9
Disorders of muscle, ligament and fascia	M	-	2	3	10	17	32	0.8
	F	-	2	4	4	13	23	0.6
	T	-	4	7	14	30	55	1.4
Osteochondropathies	M	-	-	4	16	27	47	1.2
	F	-	-	-	6	14	20	0.5
	T	-	-	4	22	41	67	1.7
Other acquired deformities of limbs	M	-	4	12	19	50	85	2.2
	F	-	-	12	20	35	67	1.7
	T	-	4	25	39	85	153	4.0
Curvature of spine	M	-	-	-	8	9	17	0.4
	F	-	1	3	8	12	24	0.6
	T	-	1	3	16	21	41	1.1
Total Diagnoses	**M**	19	141	396	764	912	2,232	58.0
	F	18	127	361	505	578	1,589	41.3
	T	37	270	767	1,281	1,491	3,846	100.0
Total Cases	**M**	11	108	273	508	568	1,468	
	F	13	82	227	335	379	1,036	
	T	24	192	507	849	948	2,520	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 68

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 2002
11 East Kootenay Health Service Delivery Area

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Retinoblastoma	M	-	-	-	-	1	1	0.2
	F	-	-	-	-	-	-	-
	T	-	-	-	-	1	1	0.2
Hemangioma and lymphangiona	M	-	2	1	1	3	7	1.4
	F	-	4	1	1	-	6	1.2
	T	-	6	2	2	3	13	2.5
Neurofibromatosis/ von Recklinghausen's	M	-	-	-	-	1	1	0.2
	F	-	-	-	-	2	2	0.4
	T	-	-	-	-	3	3	0.6
Diabetes mellitus	M	-	1	1	5	12	19	3.7
	F	-	-	5	13	13	31	6.1
	T	-	1	6	18	25	50	9.8
Disorders of adrenal glands	M	-	-	-	1	2	3	0.6
	F	-	-	-	-	2	2	0.4
	T	-	-	-	1	4	5	1.0
Tourette's syndrome	M	-	-	-	2	6	8	1.6
	F	-	-	-	-	-	-	-
	T	-	-	-	2	6	8	1.6
Hyperkinetic syndrome	M	-	-	1	17	23	41	8.0
	F	-	-	1	-	4	5	1.0
	T	-	-	2	17	27	46	9.0
Developmental delays	M	-	3	3	14	11	31	6.1
	F	-	-	3	2	9	14	2.7
	T	-	3	6	16	21	46	9.0
Mental retardation	M	-	3	4	3	7	17	3.3
	F	1	1	5	5	7	19	3.7
	T	1	4	9	8	14	36	7.0
Childhood cerebral degenerations and acquired hydrocephalus	M	-	1	1	1	1	4	0.8
	F	-	1	1	-	3	5	1.0
	T	-	2	2	1	4	9	1.8
Infantile cerebral palsy	M	-	-	5	8	5	18	3.5
	F	-	3	1	7	6	17	3.3
	T	-	3	6	15	11	35	6.8
Hemiplegia	M	-	-	-	-	1	1	0.2
	F	-	-	-	2	1	3	0.6
	T	-	-	-	2	2	4	0.8
Quadriplegia	M	-	-	-	-	1	1	0.2
	F	-	-	-	-	-	-	-
	T	-	-	-	-	1	1	0.2
Paraplegia	M	-	-	-	-	-	-	-
	F	-	-	-	-	-	-	-
	T	-	-	-	-	-	-	-
Other paralytic syndromes	M	-	-	-	1	2	3	0.6
	F	-	-	-	-	4	4	0.8
	T	-	-	-	1	6	7	1.4
Epilepsy	M	1	7	8	13	21	50	9.8
	F	-	9	8	8	13	38	7.4
	T	1	16	16	21	34	88	17.2
Retrolental fibroplasia	M	-	-	1	-	-	1	0.2
	F	2	-	-	-	-	2	0.4
	T	2	-	1	-	-	3	0.6
All other visual impairments/ blindness	M	1	-	9	11	26	47	9.2
	F	3	4	7	19	14	47	9.2
	T	4	4	16	30	40	94	18.4
Abnormal auditory perception and deafness	M	-	-	-	6	7	13	2.5
	F	-	-	-	3	4	7	1.4
	T	-	-	-	9	11	20	3.9
Rheumatoid arthritis	M	-	-	-	-	-	-	-
	F	-	-	1	1	2	4	0.8
	T	-	-	1	1	2	4	0.8
Disorders of muscle, ligament and fascia	M	-	-	1	1	1	3	0.6
	F	-	-	-	1	2	3	0.6
	T	-	-	1	2	3	6	1.2
Osteochondropathies	M	-	-	-	-	6	6	1.2
	F	-	-	-	-	4	4	0.8
	T	-	-	-	-	10	10	2.0
Other acquired deformities of limbs	M	-	-	2	1	5	8	1.6
	F	-	-	-	1	4	5	1.0
	T	-	-	2	2	9	13	2.5
Curvature of spine	M	-	-	1	-	2	3	0.6
	F	-	-	2	1	4	7	1.4
	T	-	-	3	1	6	10	2.0
Total Diagnoses	**M**	2	17	38	85	144	286	55.9
	F	6	22	35	64	98	225	43.9
	T	8	39	73	149	243	512	100.0
Total Cases	**M**	1	15	25	64	99	204	
	F	3	17	30	41	71	162	
	T	4	32	55	105	171	367	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than oncategory, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 69

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 2002
12 Kootenay Boundary Health Service Delivery Area

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Retinoblastoma	M	-	-	-	-	-	-	-
	F	-	-	-	-	-	-	-
	T	-	-	-	-	-	-	-
Hemangioma and lymphangiona	M	-	3	4	5	6	18	2.7
	F	-	1	4	2	8	15	2.2
	T	-	4	8	7	14	33	4.9
Neurofibromatosis/ von Recklinghausen's	M	-	-	-	-	1	1	0.1
	F	-	-	-	-	-	-	-
	T	-	-	-	-	1	1	0.1
Diabetes mellitus	M	-	-	8	11	12	31	4.6
	F	-	1	3	3	6	13	1.9
	T	-	1	11	14	18	44	6.5
Disorders of adrenal glands	M	-	-	1	2	1	4	0.6
	F	-	-	-	-	2	2	0.3
	T	-	-	1	2	3	6	0.9
Tourette's syndrome	M	-	-	-	3	-	3	0.4
	F	-	-	-	-	-	-	-
	T	-	-	-	3	-	3	0.4
Hyperkinetic syndrome	M	-	-	-	7	3	10	1.5
	F	-	-	1	-	-	1	0.1
	T	-	-	1	7	3	11	1.6
Developmental delays	M	-	-	4	9	10	23	3.4
	F	-	-	3	3	13	19	2.8
	T	-	-	8	13	23	44	6.5
Mental retardation	M	1	-	4	5	13	23	3.4
	F	-	2	3	4	5	14	2.1
	T	1	2	7	9	19	38	5.6
Childhood cerebral degenerations and acquired hydrocephalus	M	-	2	3	-	4	9	1.3
	F	-	2	-	1	3	6	0.9
	T	-	4	3	1	7	15	2.2
Infantile cerebral palsy	M	-	2	6	6	4	18	2.7
	F	-	-	1	9	11	21	3.1
	T	-	2	7	15	15	39	5.8
Hemiplegia	M	1	1	1	2	4	9	1.3
	F	-	-	-	-	2	2	0.3
	T	1	1	1	2	6	11	1.6
Quadriplegia	M	-	-	-	-	1	1	0.1
	F	-	-	-	-	-	-	-
	T	-	-	-	-	1	1	0.1
Paraplegia	M	-	-	-	-	1	1	0.1
	F	-	-	-	-	-	-	-
	T	-	-	-	-	1	1	0.1
Other paralytic syndromes	M	-	-	1	1	-	2	0.3
	F	-	-	-	2	2	4	0.6
	T	-	-	1	3	2	6	0.9
Epilepsy	M	1	4	13	23	24	65	9.6
	F	-	5	6	12	16	39	5.8
	T	1	9	19	35	40	104	15.3
Retrolental fibroplasia	M	-	-	-	-	-	-	-
	F	-	1	1	1	1	4	0.6
	T	-	1	1	1	1	4	0.6
All other visual impairments/ blindness	M	1	8	27	47	20	103	15.2
	F	-	13	19	56	27	115	17.0
	T	1	21	46	103	47	218	32.2
Abnormal auditory perception and deafness	M	-	-	4	9	8	21	3.1
	F	-	1	-	11	9	21	3.1
	T	-	1	4	20	17	42	6.2
Rheumatoid arthritis	M	-	-	-	-	2	2	0.3
	F	-	-	-	1	2	3	0.4
	T	-	-	-	1	4	5	0.7
Disorders of muscle, ligament and fascia	M	-	-	1	-	5	6	0.9
	F	-	-	-	1	1	2	0.3
	T	-	-	1	1	6	8	1.2
Osteochondropathies	M	-	-	-	1	7	8	1.2
	F	-	-	1	1	2	4	0.6
	T	-	-	1	2	9	12	1.8
Other acquired deformities of limbs	M	-	-	5	4	8	17	2.5
	F	-	-	1	5	3	9	1.3
	T	-	-	6	9	11	26	3.8
Curvature of spine	M	-	-	-	1	2	3	0.4
	F	-	-	-	2	1	3	0.4
	T	-	-	-	3	3	6	0.9
Total Diagnoses	**M**	4	20	82	136	136	378	55.8
	F	-	26	43	114	114	297	43.8
	T	4	46	126	251	251	678	100.0
Total Cases	**M**	4	15	54	92	99	264	
	F	-	18	36	69	77	200	
	T	4	33	91	162	177	467	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 70

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 2002
13 Okanagan Health Service Delivery Area

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Retinoblastoma	M	-	-	-	-	1	1	0.0
	F	-	1	1	-	-	2	0.1
	T	-	1	1	-	1	3	0.1
Hemangioma and lymphangioma	M	-	7	11	18	17	53	1.7
	F	1	21	20	9	30	81	2.6
	T	1	29	31	28	47	136	4.4
Neurofibromatosis/ von Recklinghausen's	M	-	1	-	3	-	4	0.1
	F	-	-	2	1	1	4	0.1
	T	-	1	2	4	2	9	0.3
Diabetes mellitus	M	-	9	21	36	52	118	3.8
	F	-	3	26	32	48	109	3.5
	T	-	12	47	68	100	227	7.3
Disorders of adrenal glands	M	-	-	5	5	4	14	0.5
	F	-	4	4	2	4	14	0.5
	T	-	4	9	7	8	28	0.9
Tourette's syndrome	M	-	-	2	12	11	25	0.8
	F	-	-	-	1	2	3	0.1
	T	-	-	2	13	13	28	0.9
Hyperkinetic syndrome	M	-	1	13	62	103	179	5.8
	F	-	-	3	13	34	50	1.6
	T	-	1	16	75	138	230	7.4
Developmental delays	M	-	12	39	48	72	171	5.5
	F	1	5	18	19	39	82	2.6
	T	1	17	61	72	111	262	8.4
Mental retardation	M	1	11	19	11	19	61	2.0
	F	-	6	15	14	16	51	1.6
	T	1	17	35	25	37	115	3.7
Childhood cerebral degenerations and acquired hydrocephalus	M	-	9	13	7	6	35	1.1
	F	1	4	9	5	13	32	1.0
	T	1	13	22	12	19	67	2.2
Infantile cerebral palsy	M	-	8	26	12	29	75	2.4
	F	-	5	12	19	33	69	2.2
	T	-	13	38	31	62	144	4.6
Hemiplegia	M	-	2	4	4	10	20	0.6
	F	-	1	4	3	7	15	0.5
	T	-	3	8	7	17	35	1.1
Quadriplegia	M	-	2	1	1	2	6	0.2
	F	1	-	2	-	2	5	0.2
	T	1	2	3	1	4	11	0.4
Paraplegia	M	1	-	-	1	5	7	0.2
	F	-	-	-	-	2	2	0.1
	T	1	-	-	1	7	9	0.3
Other paralytic syndromes	M	1	1	7	5	9	23	0.7
	F	-	2	6	7	6	21	0.7
	T	1	3	13	12	15	44	1.4
Epilepsy	M	2	44	57	52	69	224	7.2
	F	-	32	57	48	70	207	6.7
	T	2	76	114	101	140	433	14.0
Retrolental fibroplasia	M	-	5	1	4	7	17	0.5
	F	3	1	1	1	4	10	0.3
	T	3	6	2	5	11	27	0.9
All other visual impairments/ blindness	M	1	26	89	151	152	419	13.5
	F	4	18	90	144	113	369	11.9
	T	5	44	179	296	265	789	25.4
Abnormal auditory perception and deafness	M	1	6	10	41	93	151	4.9
	F	2	6	11	20	62	101	3.3
	T	3	12	21	62	156	254	8.2
Rheumatoid arthritis	M	-	-	3	1	8	12	0.4
	F	-	-	4	5	10	19	0.6
	T	-	-	7	6	18	31	1.0
Disorders of muscle, ligament and fascia	M	-	1	3	5	13	22	0.7
	F	-	-	1	3	10	14	0.5
	T	-	1	4	8	24	37	1.2
Osteochondropathies	M	-	-	3	7	14	24	0.8
	F	-	-	-	2	13	15	0.5
	T	-	-	3	9	27	39	1.3
Other acquired deformities of limbs	M	-	-	1	15	22	38	1.2
	F	-	-	2	13	23	38	1.2
	T	-	-	3	28	45	76	2.5
Curvature of spine	M	-	1	6	4	16	27	0.9
	F	2	-	2	10	26	40	1.3
	T	2	1	8	14	42	67	2.2
Total Diagnoses	**M**	7	146	334	505	734	1,726	55.7
	F	15	109	290	371	568	1,353	43.6
	T	22	256	629	885	1,309	3,101	100.0
Total Cases	**M**	6	89	209	342	485	1,131	
	F	9	85	196	254	364	908	
	T	15	175	410	602	852	2,054	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than oncategory, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 71

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 2002
14 Thompson Cariboo Shuswap Health Service Delivery Area

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Retinoblastoma	M	-	-	-	-	-	-	-
	F	-	-	1	-	-	1	0.0
	T	-	-	1	-	-	1	0.0
Hemangioma and lymphangiona	M	1	7	8	13	12	41	1.6
	F	3	15	11	9	20	58	2.2
	T	4	22	19	22	32	99	3.8
Neurofibromatosis/ von Recklinghausen's	M	-	-	4	2	1	7	0.3
	F	-	-	1	-	2	3	0.1
	T	-	-	5	3	3	11	0.4
Diabetes mellitus	M	-	2	12	25	27	66	2.5
	F	-	4	12	11	29	56	2.1
	T	-	6	28	36	56	126	4.8
Disorders of adrenal glands	M	-	1	-	1	2	4	0.2
	F	-	-	2	2	2	6	0.2
	T	-	1	2	3	4	10	0.4
Tourette's syndrome	M	-	-	5	26	33	64	2.5
	F	-	-	-	5	4	9	0.3
	T	-	-	5	32	37	74	2.8
Hyperkinetic syndrome	M	-	-	20	74	125	219	8.4
	F	-	-	3	22	58	83	3.2
	T	-	-	23	96	183	302	11.6
Developmental delays	M	-	1	25	63	90	179	6.9
	F	-	1	17	34	60	112	4.3
	T	-	2	46	100	152	300	11.5
Mental retardation	M	6	2	7	12	20	47	1.8
	F	1	3	6	17	23	50	1.9
	T	7	5	13	29	43	97	3.7
Childhood cerebral degenerations and acquired hydrocephalus	M	-	-	7	7	9	23	0.9
	F	-	4	5	5	8	22	0.8
	T	-	4	12	12	17	45	1.7
Infantile cerebral palsy	M	-	1	12	22	26	61	2.3
	F	-	1	13	27	22	63	2.4
	T	-	2	25	49	48	124	4.8
Hemiplegia	M	-	-	2	4	7	13	0.5
	F	-	1	4	6	5	16	0.6
	T	-	1	6	10	12	29	1.1
Quadriplegia	M	-	-	-	3	2	5	0.2
	F	-	-	-	1	3	4	0.2
	T	-	-	-	4	5	9	0.3
Paraplegia	M	-	-	1	-	6	7	0.3
	F	-	-	-	1	1	2	0.1
	T	-	-	1	1	7	9	0.3
Other paralytic syndromes	M	-	-	4	3	10	17	0.7
	F	-	2	1	4	7	14	0.5
	T	-	2	5	7	17	31	1.2
Epilepsy	M	3	18	40	51	65	177	6.8
	F	2	5	42	50	58	157	6.0
	T	5	23	84	102	123	337	12.9
Retrolental fibroplasia	M	1	1	-	2	3	7	0.3
	F	1	1	4	2	3	11	0.4
	T	2	2	4	4	6	18	0.7
All other visual impairments/ blindness	M	2	16	67	120	106	311	11.9
	F	2	15	82	116	108	323	12.4
	T	4	31	150	236	214	635	24.4
Abnormal auditory perception and deafness	M	-	5	15	12	38	70	2.7
	F	-	4	6	8	39	57	2.2
	T	-	9	21	20	80	130	5.0
Rheumatoid arthritis	M	-	-	2	4	3	9	0.3
	F	-	-	1	8	3	12	0.5
	T	-	-	3	12	6	21	0.8
Disorders of muscle, ligament and fascia	M	-	-	4	1	12	17	0.7
	F	-	-	-	2	8	10	0.4
	T	-	-	4	3	20	27	1.0
Osteochondropathies	M	-	-	3	5	14	22	0.8
	F	-	-	2	7	11	20	0.8
	T	-	-	5	12	25	42	1.6
Other acquired deformities of limbs	M	-	-	8	11	20	39	1.5
	F	-	-	-	8	28	36	1.4
	T	-	-	8	19	49	76	2.9
Curvature of spine	M	-	1	3	4	12	20	0.8
	F	-	-	3	3	26	32	1.2
	T	-	1	6	7	38	52	2.0
Total Diagnoses	**M**	13	55	249	465	643	1,425	54.7
	F	9	56	216	348	528	1,157	44.4
	T	22	111	476	819	1,177	2,605	100.0
Total Cases	**M**	12	43	171	299	407	932	
	F	8	47	136	226	339	756	
	T	20	90	311	530	748	1,699	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 72

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 2002
21 Fraser East Health Service Delivery Area

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Retinoblastoma	M	-	2	1	1	-	4	0.1
	F	-	-	-	1	-	1	0.0
	T	-	2	1	2	-	5	0.2
Hemangioma and lymphangioma	M	1	9	11	15	12	48	1.5
	F	2	8	18	24	11	63	1.9
	T	3	17	29	39	23	111	3.4
Neurofibromatosis/ von Recklinghausen's	M	-	-	-	4	2	6	0.2
	F	-	-	-	1	2	3	0.1
	T	-	-	-	5	4	9	0.3
Diabetes mellitus	M	-	7	17	24	29	77	2.3
	F	-	5	8	25	31	69	2.1
	T	-	12	25	49	60	146	4.4
Disorders of adrenal glands	M	1	-	1	3	5	10	0.3
	F	-	-	-	8	4	12	0.4
	T	1	-	1	11	9	22	0.7
Tourette's syndrome	M	-	-	1	8	10	19	0.6
	F	-	-	-	1	2	3	0.1
	T	-	-	1	9	12	22	0.7
Hyperkinetic syndrome	M	-	-	9	48	95	152	4.6
	F	-	-	2	16	19	37	1.1
	T	-	-	11	64	115	190	5.8
Developmental delays	M	-	12	33	57	77	179	5.4
	F	1	6	21	38	34	100	3.0
	T	1	18	58	98	113	288	8.7
Mental retardation	M	3	14	20	25	21	83	2.5
	F	2	13	11	15	24	65	2.0
	T	5	28	32	41	46	152	4.6
Childhood cerebral degenerations and acquired hydrocephalus	M	1	2	16	8	10	37	1.1
	F	-	1	6	6	7	20	0.6
	T	1	3	22	14	17	57	1.7
Infantile cerebral palsy	M	-	5	20	37	38	100	3.0
	F	-	8	13	36	25	82	2.5
	T	-	13	33	73	63	182	5.5
Hemiplegia	M	1	-	8	7	8	24	0.7
	F	-	1	3	15	4	23	0.7
	T	1	1	11	22	12	47	1.4
Quadriplegia	M	-	-	-	1	-	1	0.0
	F	-	-	1	1	1	3	0.1
	T	-	-	1	2	1	4	0.1
Paraplegia	M	-	-	-	-	1	1	0.0
	F	-	-	-	1	3	4	0.1
	T	-	-	-	1	4	5	0.2
Other paralytic syndromes	M	-	1	-	9	7	17	0.5
	F	-	-	5	11	5	21	0.6
	T	-	1	5	20	12	38	1.2
Epilepsy	M	2	22	63	67	73	227	6.9
	F	-	28	46	73	62	209	6.3
	T	2	50	109	140	135	436	13.2
Retrolental fibroplasia	M	1	2	2	2	2	9	0.3
	F	5	4	4	6	5	24	0.7
	T	6	6	6	8	7	33	1.0
All other visual impairments/ blindness	M	2	43	93	143	136	417	12.6
	F	5	44	96	168	141	454	13.7
	T	7	87	189	311	279	873	26.4
Abnormal auditory perception and deafness	M	1	5	32	99	123	260	7.9
	F	-	4	20	86	82	192	5.8
	T	1	9	52	186	205	453	13.7
Rheumatoid arthritis	M	-	-	-	2	3	5	0.2
	F	-	1	4	6	3	14	0.4
	T	-	1	4	8	6	19	0.6
Disorders of muscle, ligament and fascia	M	-	-	3	4	15	22	0.7
	F	-	-	1	8	6	15	0.5
	T	-	-	4	12	21	37	1.1
Osteochondropathies	M	-	1	5	5	13	24	0.7
	F	-	-	1	6	13	20	0.6
	T	-	1	6	11	26	44	1.3
Other acquired deformities of limbs	M	-	1	-	13	28	42	1.3
	F	-	-	6	21	11	38	1.2
	T	-	1	6	34	39	80	2.4
Curvature of spine	M	-	-	5	4	11	20	0.6
	F	-	1	3	8	18	30	0.9
	T	-	1	8	12	29	50	1.5
Total Diagnoses	**M**	13	126	340	586	719	1,784	54.0
	F	15	124	269	581	513	1,502	45.5
	T	28	251	614	1,172	1,238	3,303	100.0
Total Cases	**M**	10	86	239	405	471	1,211	
	F	9	81	184	367	355	996	
	T	19	168	427	775	829	2,218	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than oncategory, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 73

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 2002
22 Fraser North Health Service Delivery Area

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Retinoblastoma	M	-	-	2	1	-	3	0.1
	F	-	-	1	1	-	2	0.0
	T	-	-	3	2	-	5	0.1
Hemangioma and lymphangioma	M	4	14	20	17	26	81	1.7
	F	3	25	31	34	28	121	2.5
	T	7	40	51	51	54	203	4.3
Neurofibromatosis/ von Recklinghausen's	M	-	-	-	5	1	6	0.1
	F	-	-	3	2	5	10	0.2
	T	-	-	5	7	7	19	0.4
Diabetes mellitus	M	-	7	28	45	48	128	2.7
	F	-	2	18	21	45	86	1.8
	T	-	9	46	66	93	214	4.5
Disorders of adrenal glands	M	-	-	5	3	3	11	0.2
	F	-	7	2	-	-	9	0.2
	T	-	7	7	3	3	20	0.4
Tourette's syndrome	M	-	-	5	10	14	29	0.6
	F	-	-	-	2	4	6	0.1
	T	-	-	5	12	18	35	0.7
Hyperkinetic syndrome	M	-	1	15	69	88	173	3.6
	F	-	-	4	14	27	45	0.9
	T	-	1	19	85	116	221	4.6
Developmental delays	M	-	21	65	122	109	317	6.6
	F	1	11	36	64	55	167	3.5
	T	1	32	109	192	167	501	10.5
Mental retardation	M	9	32	27	23	38	129	2.7
	F	2	18	12	23	29	84	1.8
	T	13	51	41	48	67	220	4.6
Childhood cerebral degenerations and acquired hydrocephalus	M	-	13	11	16	10	50	1.0
	F	3	3	8	4	9	27	0.6
	T	3	16	19	21	19	78	1.6
Infantile cerebral palsy	M	-	16	23	38	36	113	2.4
	F	-	8	15	33	15	71	1.5
	T	-	24	38	71	51	184	3.9
Hemiplegia	M	-	1	5	14	13	33	0.7
	F	-	3	3	14	7	27	0.6
	T	-	4	8	28	20	60	1.3
Quadriplegia	M	-	1	1	1	4	7	0.1
	F	-	-	-	4	-	4	0.1
	T	-	1	1	5	4	11	0.2
Paraplegia	M	-	1	-	1	4	6	0.1
	F	-	-	-	1	-	1	0.0
	T	-	1	-	2	4	7	0.1
Other paralytic syndromes	M	1	-	9	11	12	33	0.7
	F	-	-	8	13	8	29	0.6
	T	1	-	18	24	20	63	1.3
Epilepsy	M	-	38	107	107	123	375	7.9
	F	4	47	78	95	89	313	6.6
	T	4	85	186	202	214	691	14.5
Retrolental fibroplasia	M	4	9	7	3	5	28	0.6
	F	2	6	3	9	12	32	0.7
	T	6	15	10	12	17	60	1.3
All other visual impairments/ blindness	M	6	67	184	285	252	794	16.6
	F	4	49	216	278	248	795	16.7
	T	10	116	402	563	501	1,592	33.3
Abnormal auditory perception and deafness	M	-	9	27	30	26	92	1.9
	F	1	6	16	27	32	82	1.7
	T	1	15	45	59	60	180	3.8
Rheumatoid arthritis	M	-	-	2	2	14	18	0.4
	F	-	-	-	6	15	21	0.4
	T	-	-	2	8	29	39	0.8
Disorders of muscle, ligament and fascia	M	-	-	11	12	10	33	0.7
	F	-	-	5	7	13	25	0.5
	T	-	-	16	19	23	58	1.2
Osteochondropathies	M	-	-	8	15	36	59	1.2
	F	-	-	1	13	11	25	0.5
	T	-	-	9	28	47	84	1.8
Other acquired deformities of limbs	M	-	1	10	31	35	77	1.6
	F	-	3	4	22	23	52	1.1
	T	-	4	14	53	58	129	2.7
Curvature of spine	M	-	2	5	13	12	32	0.7
	F	-	-	4	14	50	68	1.4
	T	-	2	9	27	62	100	2.1
Total Diagnoses	M	24	233	577	874	919	2,627	55.0
	F	20	188	468	701	725	2,102	44.0
	T	46	423	1,063	1,588	1,654	4,774	100.0
Total Cases	M	17	155	384	551	608	1,715	
	F	16	131	317	428	490	1,382	
	T	35	288	712	986	1,103	3,124	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 74

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 2002
23 Fraser South Health Service Delivery Area

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Retinoblastoma	M	-	1	2	2	1	6	0.1
	F	-	-	-	1	-	1	0.0
	T	-	1	2	3	1	7	0.1
Hemangioma and lymphangioma	M	1	15	27	28	45	116	1.8
	F	5	28	24	22	21	100	1.5
	T	6	44	51	50	66	217	3.3
Neurofibromatosis/ von Recklinghausen's	M	-	2	5	4	2	13	0.2
	F	-	-	2	2	3	7	0.1
	T	-	2	7	9	6	24	0.4
Diabetes mellitus	M	-	9	33	41	92	175	2.7
	F	-	14	23	50	78	165	2.5
	T	-	23	56	92	170	341	5.3
Disorders of adrenal glands	M	-	1	6	9	8	24	0.4
	F	-	6	5	3	5	19	0.3
	T	-	7	11	12	13	43	0.7
Tourette's syndrome	M	-	-	4	18	16	38	0.6
	F	-	-	1	5	4	10	0.2
	T	-	-	5	23	20	48	0.7
Hyperkinetic syndrome	M	-	5	21	93	112	231	3.6
	F	-	-	4	24	39	67	1.0
	T	-	5	26	117	153	301	4.6
Developmental delays	M	1	30	77	158	156	422	6.5
	F	2	13	47	95	105	262	4.0
	T	3	43	134	264	265	709	10.9
Mental retardation	M	3	24	30	41	40	138	2.1
	F	7	17	27	22	53	126	1.9
	T	10	42	62	63	94	271	4.2
Childhood cerebral degenerations and acquired hydrocephalus	M	2	15	19	21	18	75	1.2
	F	3	3	16	14	20	56	0.9
	T	5	18	36	35	38	132	2.0
Infantile cerebral palsy	M	-	13	46	62	67	188	2.9
	F	1	9	25	58	60	153	2.4
	T	1	22	74	120	127	344	5.3
Hemiplegia	M	-	4	8	21	12	45	0.7
	F	-	2	11	11	24	48	0.7
	T	-	6	19	32	36	93	1.4
Quadriplegia	M	-	1	5	7	8	21	0.3
	F	-	1	-	5	-	6	0.1
	T	-	2	5	12	8	27	0.4
Paraplegia	M	-	-	1	2	5	8	0.1
	F	-	-	-	2	2	4	0.1
	T	-	-	1	4	7	12	0.2
Other paralytic syndromes	M	-	-	9	9	19	37	0.6
	F	-	2	10	12	16	40	0.6
	T	-	2	19	21	35	77	1.2
Epilepsy	M	3	63	89	171	179	505	7.8
	F	10	58	87	94	157	406	6.3
	T	13	121	180	268	336	918	14.1
Retrolental fibroplasia	M	10	6	6	9	13	44	0.7
	F	5	6	7	11	13	42	0.6
	T	15	12	13	20	26	86	1.3
All other visual impairments/ blindness	M	13	73	227	354	328	995	15.3
	F	7	89	230	360	373	1,059	16.3
	T	20	162	459	714	703	2,058	31.7
Abnormal auditory perception and deafness	M	1	13	43	46	42	145	2.2
	F	3	14	24	37	33	111	1.7
	T	4	27	67	83	76	257	4.0
Rheumatoid arthritis	M	-	-	1	4	8	13	0.2
	F	-	-	4	9	15	28	0.4
	T	-	-	5	13	23	41	0.6
Disorders of muscle, ligament and fascia	M	-	1	7	11	15	34	0.5
	F	-	1	5	9	14	29	0.4
	T	-	2	12	20	29	63	1.0
Osteochondropathies	M	-	-	6	24	31	61	0.9
	F	-	-	4	6	22	32	0.5
	T	-	-	10	30	53	93	1.4
Other acquired deformities of limbs	M	-	1	16	32	62	111	1.7
	F	1	5	13	41	42	102	1.6
	T	1	6	29	73	104	213	3.3
Curvature of spine	M	-	3	6	12	17	38	0.6
	F	-	-	3	30	45	78	1.2
	T	-	3	9	42	62	116	1.8
Total Diagnoses	**M**	34	280	694	1,179	1,296	3,483	53.7
	F	44	268	572	923	1,144	2,951	45.5
	T	78	550	1,292	2,120	2,451	6,491	100.0
Total Cases	**M**	22	195	453	713	807	2,190	
	F	29	187	381	559	697	1,853	
	T	51	384	852	1,284	1,510	4,081	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than oncategory, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 75

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 2002
31 Richmond Health Service Delivery Area

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Retinoblastoma	M	-	-	-	-	1	1	0.1
	F	-	-	-	1	-	1	0.1
	T	-	-	-	1	1	2	0.1
Hemangioma and lymphangioma	M	-	1	6	5	14	26	1.9
	F	-	9	7	8	12	36	2.7
	T	-	11	14	13	26	64	4.7
Neurofibromatosis/ von Recklinghausen's	M	-	-	1	1	1	3	0.2
	F	-	1	-	-	2	3	0.2
	T	-	1	1	1	3	6	0.4
Diabetes mellitus	M	-	2	5	10	18	35	2.6
	F	-	1	3	4	6	14	1.0
	T	-	3	8	14	24	49	3.6
Disorders of adrenal glands	M	-	-	-	3	1	4	0.3
	F	-	-	1	1	-	2	0.1
	T	-	-	1	4	1	6	0.4
Tourette's syndrome	M	-	-	-	3	10	13	1.0
	F	-	-	-	1	1	2	0.1
	T	-	-	-	4	11	15	1.1
Hyperkinetic syndrome	M	-	-	8	28	31	67	4.9
	F	-	-	1	5	7	13	1.0
	T	-	-	9	33	38	80	5.9
Developmental delays	M	-	10	22	44	51	127	9.4
	F	-	3	7	23	28	61	4.5
	T	-	13	30	70	79	192	14.1
Mental retardation	M	3	5	7	9	14	38	2.8
	F	1	3	8	7	8	27	2.0
	T	4	9	16	16	22	67	4.9
Childhood cerebral degenerations and acquired hydrocephalus	M	-	2	2	2	4	10	0.7
	F	-	1	1	1	3	6	0.4
	T	-	3	3	3	7	16	1.2
Infantile cerebral palsy	M	-	1	6	15	20	42	3.1
	F	-	1	3	5	14	23	1.7
	T	-	2	9	20	34	65	4.8
Hemiplegia	M	-	3	3	5	-	11	0.8
	F	-	-	1	7	2	10	0.7
	T	-	3	4	12	2	21	1.5
Quadriplegia	M	-	-	-	1	2	3	0.2
	F	-	-	-	1	1	2	0.1
	T	-	-	-	2	3	5	0.4
Paraplegia	M	-	-	-	-	2	2	0.1
	F	-	-	-	1	1	2	0.1
	T	-	-	-	1	3	4	0.3
Other paralytic syndromes	M	-	1	2	-	2	5	0.4
	F	-	-	2	-	5	7	0.5
	T	-	1	5	-	7	13	1.0
Epilepsy	M	-	12	32	34	54	132	9.7
	F	2	12	18	37	44	113	8.3
	T	2	24	50	71	98	245	18.1
Retrolental fibroplasia	M	2	-	1	1	3	7	0.5
	F	2	-	1	1	1	5	0.4
	T	4	-	2	2	4	12	0.9
All other visual impairments/ blindness	M	2	6	50	65	70	193	14.2
	F	3	13	29	63	28	136	10.0
	T	5	19	79	128	98	329	24.2
Abnormal auditory perception and deafness	M	-	3	4	14	17	38	2.8
	F	-	2	2	3	11	18	1.3
	T	-	5	7	17	28	57	4.2
Rheumatoid arthritis	M	-	-	-	1	6	7	0.5
	F	-	-	2	1	2	5	0.4
	T	-	-	2	2	8	12	0.9
Disorders of muscle, ligament and fascia	M	-	-	2	-	3	5	0.4
	F	-	-	-	-	4	4	0.3
	T	-	-	2	-	7	9	0.7
Osteochondropathies	M	-	-	1	-	7	8	0.6
	F	-	-	2	1	-	3	0.2
	T	-	-	3	1	7	11	0.8
Other acquired deformities of limbs	M	-	-	4	10	14	28	2.1
	F	-	-	2	6	10	18	1.3
	T	-	-	8	16	24	48	3.5
Curvature of spine	M	-	-	2	2	7	11	0.8
	F	-	-	1	4	12	17	1.3
	T	-	-	4	6	19	29	2.1
Total Diagnoses	**M**	7	46	158	253	352	816	60.1
	F	8	46	91	181	202	528	38.9
	T	15	94	257	437	554	1,357	100.0
Total Cases	**M**	5	34	106	160	209	514	
	F	4	33	69	107	121	334	
	T	9	69	180	270	330	858	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 76

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 2002
32 Vancouver Health Service Delivery Area

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Retinoblastoma	M	-	-	1	-	-	1	0.0
	F	-	-	-	1	1	2	0.0
	T	-	-	1	1	1	3	0.1
Hemangioma and lymphangioma	M	2	24	22	18	16	82	2.0
	F	2	30	23	24	26	105	2.6
	T	4	54	45	42	42	187	4.7
Neurofibromatosis/ von Recklinghausen's	M	-	-	3	1	2	6	0.1
	F	-	-	4	3	4	11	0.3
	T	-	-	8	4	7	19	0.5
Diabetes mellitus	M	-	1	9	21	39	70	1.7
	F	-	5	15	12	34	66	1.6
	T	-	6	24	33	73	136	3.4
Disorders of adrenal glands	M	-	2	2	3	2	9	0.2
	F	1	1	2	2	4	10	0.2
	T	1	3	4	5	6	19	0.5
Tourette's syndrome	M	-	-	2	8	15	25	0.6
	F	-	-	-	-	4	4	0.1
	T	-	-	2	8	19	29	0.7
Hyperkinetic syndrome	M	-	2	23	49	78	152	3.8
	F	-	-	5	12	24	41	1.0
	T	-	2	29	62	102	196	4.9
Developmental delays	M	1	29	71	107	170	378	9.4
	F	-	13	49	55	72	189	4.7
	T	1	42	126	171	243	583	14.5
Mental retardation	M	5	29	38	31	27	130	3.2
	F	1	11	23	21	37	93	2.3
	T	6	42	64	52	64	228	5.7
Childhood cerebral degenerations and acquired hydrocephalus	M	2	6	13	10	11	42	1.0
	F	2	7	10	5	10	34	0.8
	T	4	13	23	15	21	76	1.9
Infantile cerebral palsy	M	2	4	24	17	35	82	2.0
	F	-	5	16	14	28	63	1.6
	T	2	11	41	31	64	149	3.7
Hemiplegia	M	-	2	1	9	17	29	0.7
	F	-	1	7	7	8	23	0.6
	T	-	3	8	16	26	53	1.3
Quadriplegia	M	-	-	3	-	3	6	0.1
	F	-	1	2	-	-	3	0.1
	T	-	1	5	-	3	9	0.2
Paraplegia	M	-	1	-	2	2	5	0.1
	F	-	-	-	-	2	2	0.0
	T	-	1	-	2	4	7	0.2
Other paralytic syndromes	M	-	-	7	7	6	20	0.5
	F	-	1	6	6	15	28	0.7
	T	-	1	13	13	21	48	1.2
Epilepsy	M	3	36	86	106	155	386	9.6
	F	4	50	88	82	133	357	8.9
	T	7	87	174	188	288	744	18.5
Retrolental fibroplasia	M	8	8	2	5	9	32	0.8
	F	3	10	2	3	2	20	0.5
	T	11	18	4	8	11	52	1.3
All other visual impairments/ blindness	M	11	51	136	173	178	549	13.7
	F	6	43	121	156	153	479	11.9
	T	17	94	262	332	339	1,044	26.0
Abnormal auditory perception and deafness	M	1	7	28	27	31	94	2.3
	F	-	5	16	25	29	75	1.9
	T	1	14	46	52	60	173	4.3
Rheumatoid arthritis	M	-	-	1	5	8	14	0.3
	F	-	2	1	4	13	20	0.5
	T	-	2	2	9	21	34	0.8
Disorders of muscle, ligament and fascia	M	-	-	3	1	4	8	0.2
	F	-	1	4	5	5	15	0.4
	T	-	1	7	6	9	23	0.6
Osteochondropathies	M	-	-	7	4	18	29	0.7
	F	-	-	2	2	7	11	0.3
	T	-	-	9	6	25	40	1.0
Other acquired deformities of limbs	M	-	-	7	17	36	60	1.5
	F	-	2	12	13	25	52	1.3
	T	-	2	19	30	62	113	2.8
Curvature of spine	M	1	-	3	4	9	17	0.4
	F	-	-	5	7	27	39	1.0
	T	1	-	8	11	36	56	1.4
Total Diagnoses	**M**	36	202	492	625	871	2,226	55.4
	F	19	188	413	459	663	1,742	43.3
	T	55	397	924	1,097	1,547	4,020	100.0
Total Cases	**M**	23	156	312	384	537	1,412	
	F	14	145	266	311	433	1,169	
	T	37	304	589	705	975	2,610	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than oncategory, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 77

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 2002
33 North Shore/Coast Garibaldi Health Service Delivery Area

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Retinoblastoma	M	-	1	1	1	-	3	0.1
	F	-	1	-	-	-	1	0.0
	T	-	2	1	1	-	4	0.2
Hemangioma and lymphangioma	M	1	7	14	12	11	45	1.9
	F	1	10	13	16	24	64	2.7
	T	2	17	27	28	35	109	4.7
Neurofibromatosis/ von Recklinghausen's	M	-	-	-	1	1	2	0.1
	F	-	-	-	1	-	1	0.0
	T	-	-	-	2	2	4	0.2
Diabetes mellitus	M	-	-	10	18	28	56	2.4
	F	-	1	16	17	32	66	2.8
	T	-	1	26	35	60	122	5.2
Disorders of adrenal glands	M	-	1	1	1	2	5	0.2
	F	-	-	-	1	3	4	0.2
	T	-	1	1	2	5	9	0.4
Tourette's syndrome	M	-	-	3	6	4	13	0.6
	F	-	-	-	1	2	3	0.1
	T	-	-	3	7	6	16	0.7
Hyperkinetic syndrome	M	-	1	9	31	33	74	3.2
	F	-	-	-	6	11	17	0.7
	T	-	1	9	37	45	92	3.9
Developmental delays	M	-	10	33	65	48	156	6.7
	F	-	4	14	34	40	92	3.9
	T	-	14	53	103	92	262	11.2
Mental retardation	M	1	18	10	16	20	65	2.8
	F	2	4	6	11	17	40	1.7
	T	4	25	19	28	40	116	5.0
Childhood cerebral degenerations and acquired hydrocephalus	M	-	5	10	10	6	31	1.3
	F	-	-	7	7	6	20	0.9
	T	-	5	17	17	12	51	2.2
Infantile cerebral palsy	M	-	-	9	27	22	58	2.5
	F	-	3	10	29	10	52	2.2
	T	-	3	19	56	32	110	4.7
Hemiplegia	M	-	2	6	6	9	23	1.0
	F	-	2	3	6	1	12	0.5
	T	-	4	9	12	10	35	1.5
Quadriplegia	M	1	-	-	3	2	6	0.3
	F	-	1	-	2	2	5	0.2
	T	1	1	-	5	4	11	0.5
Paraplegia	M	-	-	1	-	1	2	0.1
	F	-	-	-	-	1	1	0.0
	T	-	-	1	-	2	3	0.1
Other paralytic syndromes	M	-	1	-	7	8	16	0.7
	F	-	1	2	3	5	11	0.5
	T	-	2	2	10	13	27	1.2
Epilepsy	M	4	22	42	50	61	179	7.7
	F	-	19	39	47	61	166	7.1
	T	4	41	84	97	123	349	15.0
Retrolental fibroplasia	M	1	2	1	1	5	10	0.4
	F	1	2	1	2	4	10	0.4
	T	2	4	2	3	9	20	0.9
All other visual impairments/ blindness	M	2	26	83	118	100	329	14.1
	F	2	21	77	157	87	344	14.7
	T	4	47	160	275	192	678	29.0
Abnormal auditory perception and deafness	M	-	3	18	25	25	71	3.0
	F	1	-	9	20	16	46	2.0
	T	1	3	27	46	42	119	5.1
Rheumatoid arthritis	M	-	-	1	1	4	6	0.3
	F	-	-	2	4	2	8	0.3
	T	-	-	3	5	6	14	0.6
Disorders of muscle, ligament and fascia	M	-	-	3	5	7	15	0.6
	F	-	1	3	5	4	13	0.6
	T	-	1	6	10	11	28	1.2
Osteochondropathies	M	-	-	1	7	21	29	1.2
	F	-	-	1	2	10	13	0.6
	T	-	-	2	9	31	42	1.8
Other acquired deformities of limbs	M	-	1	7	23	18	49	2.1
	F	-	1	5	10	17	33	1.4
	T	-	2	12	34	35	83	3.6
Curvature of spine	M	-	-	1	4	3	8	0.3
	F	1	1	1	5	14	22	0.9
	T	1	1	2	9	17	30	1.3
Total Diagnoses	**M**	10	100	264	438	439	1,251	53.6
	F	8	72	209	386	369	1,044	44.7
	T	19	175	485	831	824	2,334	100.0
Total Cases	**M**	8	75	181	280	277	821	
	F	5	53	138	235	250	681	
	T	14	131	325	521	531	1,522	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 78

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 2002
41 South Vancouver Island Health Service Delivery Area

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Retinoblastoma	M	1	-	-	2	1	4	0.1
	F	-	-	-	2	1	3	0.1
	T	1	-	-	4	2	7	0.2
Hemangioma and lymphangioma	M	1	2	11	4	27	45	1.2
	F	-	17	11	10	17	55	1.5
	T	1	19	22	14	44	100	2.8
Neurofibromatosis/ von Recklinghausen's	M	-	3	1	3	1	8	0.2
	F	1	1	3	2	-	7	0.2
	T	1	4	4	7	1	17	0.5
Diabetes mellitus	M	1	9	25	29	43	107	3.0
	F	-	6	19	33	51	109	3.0
	T	1	15	44	62	94	216	6.0
Disorders of adrenal glands	M	-	2	-	4	2	8	0.2
	F	-	-	1	3	4	8	0.2
	T	-	2	1	7	6	16	0.4
Tourette's syndrome	M	-	-	9	12	20	41	1.1
	F	-	-	2	3	3	8	0.2
	T	-	-	11	15	23	49	1.4
Hyperkinetic syndrome	M	-	1	34	132	160	327	9.1
	F	-	1	2	28	36	67	1.9
	T	-	2	36	160	196	394	10.9
Developmental delays	M	-	6	51	144	186	387	10.7
	F	1	4	23	51	108	187	5.2
	T	1	10	74	197	295	577	16.0
Mental retardation	M	3	6	17	23	36	85	2.4
	F	1	18	13	19	32	83	2.3
	T	4	24	30	42	68	168	4.7
Childhood cerebral degenerations and acquired hydrocephalus	M	-	9	5	11	7	32	0.9
	F	1	1	6	9	7	24	0.7
	T	1	10	11	20	14	56	1.6
Infantile cerebral palsy	M	-	3	20	34	38	95	2.6
	F	-	2	24	28	39	93	2.6
	T	-	5	44	62	77	188	5.2
Hemiplegia	M	-	1	4	5	2	12	0.3
	F	-	1	1	5	4	11	0.3
	T	-	2	5	10	6	23	0.6
Quadriplegia	M	-	-	-	4	3	7	0.2
	F	-	-	-	-	5	5	0.1
	T	-	-	-	4	8	12	0.3
Paraplegia	M	-	-	-	2	3	5	0.1
	F	-	-	3	1	2	6	0.2
	T	-	-	3	3	5	11	0.3
Other paralytic syndromes	M	-	2	3	9	6	20	0.6
	F	1	-	3	5	9	18	0.5
	T	1	2	6	14	15	38	1.1
Epilepsy	M	2	15	46	55	73	191	5.3
	F	3	21	39	54	59	176	4.9
	T	5	36	85	109	132	367	10.2
Retrolental fibroplasia	M	2	11	6	14	3	36	1.0
	F	4	8	4	14	6	36	1.0
	T	6	19	10	28	9	72	2.0
All other visual impairments/ blindness	M	2	40	91	125	160	418	11.6
	F	5	24	76	152	118	375	10.4
	T	7	64	167	278	278	794	22.0
Abnormal auditory perception and deafness	M	1	10	33	59	43	146	4.0
	F	3	7	25	39	54	128	3.5
	T	4	17	58	98	97	274	7.6
Rheumatoid arthritis	M	-	-	1	2	9	12	0.3
	F	-	1	1	12	6	20	0.6
	T	-	1	2	14	15	32	0.9
Disorders of muscle, ligament and fascia	M	-	-	5	5	7	17	0.5
	F	-	-	2	6	12	20	0.6
	T	-	1	7	11	19	38	1.1
Osteochondropathies	M	-	-	-	7	16	23	0.6
	F	-	-	-	4	2	6	0.2
	T	-	-	-	11	18	29	0.8
Other acquired deformities of limbs	M	-	-	4	13	21	38	1.1
	F	-	1	5	9	18	33	0.9
	T	-	1	9	22	39	71	2.0
Curvature of spine	M	-	-	-	6	3	9	0.2
	F	-	1	8	11	31	51	1.4
	T	-	1	8	17	34	60	1.7
Total Diagnoses	**M**	13	120	366	704	870	2,073	57.4
	F	20	114	271	500	624	1,529	42.4
	T	33	235	637	1,209	1,495	3,609	100.0
Total Cases	**M**	11	83	242	441	528	1,305	
	F	11	83	174	327	381	976	
	T	22	167	416	773	910	2,288	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than oncategory, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 79

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 2002
42 Central Vancouver Island Health Service Delivery Area

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Retinoblastoma	M	-	1	1	-	2	4	0.2
	F	-	-	-	-	1	1	0.0
	T	-	1	1	-	3	5	0.2
Hemangioma and lymphangioma	M	2	5	13	13	16	49	1.8
	F	1	10	5	13	15	44	1.7
	T	3	15	18	26	31	93	3.5
Neurofibromatosis/ von Recklinghausen's	M	-	2	1	-	-	3	0.1
	F	-	1	2	1	4	8	0.3
	T	-	3	3	1	4	11	0.4
Diabetes mellitus	M	-	4	13	17	17	51	1.9
	F	-	1	9	22	34	66	2.5
	T	-	5	22	39	51	117	4.4
Disorders of adrenal glands	M	2	-	-	-	1	3	0.1
	F	-	-	1	1	-	2	0.1
	T	2	-	1	1	1	5	0.2
Tourette's syndrome	M	-	-	1	11	11	23	0.9
	F	-	-	-	1	2	3	0.1
	T	-	-	1	12	13	26	1.0
Hyperkinetic syndrome	M	-	1	9	56	103	169	6.4
	F	-	-	2	16	18	36	1.4
	T	-	1	11	72	121	205	7.7
Developmental delays	M	-	6	35	68	90	199	7.5
	F	-	3	23	44	47	117	4.4
	T	-	9	58	114	137	318	12.0
Mental retardation	M	2	12	22	12	15	63	2.4
	F	3	5	9	12	10	39	1.5
	T	5	17	31	24	25	102	3.8
Childhood cerebral degenerations and acquired hydrocephalus	M	-	6	16	8	4	34	1.3
	F	1	1	11	9	9	31	1.2
	T	1	7	27	17	13	65	2.5
Infantile cerebral palsy	M	-	5	14	26	35	80	3.0
	F	-	3	21	31	25	80	3.0
	T	-	8	35	57	60	160	6.0
Hemiplegia	M	-	-	6	4	10	20	0.8
	F	2	-	3	11	10	26	1.0
	T	2	-	9	15	20	46	1.7
Quadriplegia	M	-	-	1	-	4	5	0.2
	F	-	-	2	2	1	5	0.2
	T	-	-	3	2	5	10	0.4
Paraplegia	M	-	2	-	1	3	6	0.2
	F	-	-	-	1	3	4	0.2
	T	-	2	-	2	6	10	0.4
Other paralytic syndromes	M	-	2	1	3	12	18	0.7
	F	-	-	3	4	6	13	0.5
	T	-	2	4	7	18	31	1.2
Epilepsy	M	1	17	52	57	82	209	7.9
	F	11	10	41	60	63	185	7.0
	T	12	27	93	117	145	394	14.9
Retrolental fibroplasia	M	3	6	6	3	6	24	0.9
	F	-	2	3	7	5	17	0.6
	T	3	8	9	10	11	41	1.5
All other visual impairments/ blindness	M	3	21	80	99	117	320	12.1
	F	-	25	76	116	126	343	12.9
	T	3	46	156	215	243	663	25.0
Abnormal auditory perception and deafness	M	1	2	28	28	18	77	2.9
	F	-	-	17	20	15	52	2.0
	T	1	2	45	48	33	129	4.9
Rheumatoid arthritis	M	-	-	1	6	4	11	0.4
	F	-	1	1	5	13	20	0.8
	T	-	1	2	11	17	31	1.2
Disorders of muscle, ligament and fascia	M	-	-	2	5	5	12	0.5
	F	-	1	1	3	3	8	0.3
	T	-	1	3	8	8	20	0.8
Osteochondropathies	M	-	-	3	6	24	33	1.2
	F	-	-	2	7	10	19	0.7
	T	-	-	5	13	34	52	2.0
Other acquired deformities of limbs	M	-	1	4	16	23	44	1.7
	F	-	1	7	11	15	34	1.3
	T	-	2	11	27	38	78	2.9
Curvature of spine	M	-	3	1	2	7	13	0.5
	F	-	-	1	11	15	27	1.0
	T	-	3	2	13	22	40	1.5
Total Diagnoses	**M**	14	96	310	441	609	1,470	55.4
	F	18	64	240	408	450	1,180	44.5
	T	32	160	550	851	1,059	2,652	100.0
Total Cases	**M**	9	67	212	282	360	930	
	F	8	51	137	249	276	721	
	T	17	118	349	532	636	1,652	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 80

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 2002
43 North Vancouver Island Health Service Delivery Area

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Retinoblastoma	M	-	-	-	1	-	1	0.1
	F	-	1	-	-	1	2	0.1
	T	-	1	-	1	1	3	0.2
Hemangioma and lymphangioma	M	-	6	4	8	2	20	1.4
	F	-	5	4	10	3	22	1.5
	T	-	12	8	18	5	43	3.0
Neurofibromatosis/ von Recklinghausen's	M	-	-	1	1	-	2	0.1
	F	-	-	1	-	-	1	0.1
	T	-	-	2	1	1	4	0.3
Diabetes mellitus	M	-	1	9	17	26	53	3.7
	F	-	-	4	6	14	24	1.7
	T	-	1	13	23	40	77	5.3
Disorders of adrenal glands	M	-	-	-	2	1	3	0.2
	F	-	-	-	1	1	2	0.1
	T	-	-	-	3	2	5	0.3
Tourette's syndrome	M	-	-	1	6	2	9	0.6
	F	-	-	-	1	2	3	0.2
	T	-	-	1	7	4	12	0.8
Hyperkinetic syndrome	M	-	-	8	20	33	61	4.2
	F	-	-	1	5	10	16	1.1
	T	-	-	9	25	43	77	5.3
Developmental delays	M	-	4	16	31	58	109	7.5
	F	-	1	11	21	30	63	4.3
	T	-	5	28	53	88	174	12.0
Mental retardation	M	-	4	2	7	17	30	2.1
	F	-	-	3	8	12	23	1.6
	T	-	4	5	15	29	53	3.7
Childhood cerebral degenerations and acquired hydrocephalus	M	-	1	8	4	2	15	1.0
	F	1	1	3	4	3	12	0.8
	T	1	2	11	8	5	27	1.9
Infantile cerebral palsy	M	-	7	7	10	24	48	3.3
	F	-	1	4	8	17	30	2.1
	T	-	8	11	18	41	78	5.4
Hemiplegia	M	-	-	6	-	6	12	0.8
	F	-	-	1	1	7	9	0.6
	T	-	-	7	1	13	21	1.4
Quadriplegia	M	-	-	-	-	2	2	0.1
	F	-	1	-	-	1	2	0.1
	T	-	1	-	-	3	4	0.3
Paraplegia	M	-	-	-	-	3	3	0.2
	F	-	-	1	-	2	3	0.2
	T	-	-	1	-	5	6	0.4
Other paralytic syndromes	M	-	-	2	1	3	6	0.4
	F	-	-	3	2	6	11	0.8
	T	-	-	5	3	9	17	1.2
Epilepsy	M	1	15	21	18	45	100	6.9
	F	1	10	24	38	30	103	7.1
	T	2	25	45	56	75	203	14.0
Retrolental fibroplasia	M	1	5	1	2	4	13	0.9
	F	3	-	1	-	2	6	0.4
	T	4	5	2	2	6	19	1.3
All other visual impairments/ blindness	M	2	18	40	75	78	213	14.7
	F	3	9	39	67	70	188	12.9
	T	5	27	79	144	150	405	27.9
Abnormal auditory perception and deafness	M	1	3	12	13	18	47	3.2
	F	1	1	6	14	24	46	3.2
	T	2	4	18	27	42	93	6.4
Rheumatoid arthritis	M	-	-	1	5	-	6	0.4
	F	-	1	2	3	4	10	0.7
	T	-	1	3	8	4	16	1.1
Disorders of muscle, ligament and fascia	M	-	1	3	2	6	12	0.8
	F	-	-	-	3	4	7	0.5
	T	-	1	3	5	10	19	1.3
Osteochondropathies	M	-	1	1	1	7	10	0.7
	F	-	-	-	3	5	8	0.6
	T	-	1	1	4	12	18	1.2
Other acquired deformities of limbs	M	-	-	3	12	25	40	2.8
	F	-	1	-	8	7	16	1.1
	T	-	1	3	20	32	56	3.9
Curvature of spine	M	-	-	1	2	8	11	0.8
	F	-	-	1	3	7	11	0.8
	T	-	-	2	5	15	22	1.5
Total Diagnoses	**M**	5	66	147	238	370	826	56.9
	F	9	32	109	206	262	618	42.6
	T	14	99	257	447	635	1,452	100.0
Total Cases	**M**	4	39	103	164	204	514	
	F	6	25	78	132	154	395	
	T	10	65	182	298	359	914	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than oncategory, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 81

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 2002
51 Northwest Health Service Delivery Area

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Retinoblastoma	M	-	-	-	-	-	-	-
	F	-	-	-	1	-	1	0.1
	T	-	-	-	1	-	1	0.1
Hemangioma and lymphangiona	M	1	3	6	5	9	24	2.0
	F	1	3	4	4	3	15	1.3
	T	2	7	10	9	12	40	3.4
Neurofibromatosis/ von Recklinghausen's	M	-	-	1	1	2	4	0.3
	F	-	2	-	-	-	2	0.2
	T	-	2	1	1	2	6	0.5
Diabetes mellitus	M	-	1	7	2	5	15	1.3
	F	-	1	6	5	4	16	1.3
	T	-	2	13	7	9	31	2.6
Disorders of adrenal glands	M	-	1	1	-	3	5	0.4
	F	-	-	1	-	-	1	0.1
	T	-	1	2	-	3	6	0.5
Tourette's syndrome	M	-	-	1	3	4	8	0.7
	F	-	-	-	1	-	1	0.1
	T	-	-	1	4	4	9	0.8
Hyperkinetic syndrome	M	-	-	8	23	39	70	5.9
	F	-	-	1	3	10	14	1.2
	T	-	-	9	26	49	84	7.1
Developmental delays	M	-	2	17	49	36	104	8.8
	F	-	4	10	23	16	53	4.5
	T	-	6	29	73	52	160	13.5
Mental retardation	M	-	1	6	7	15	29	2.4
	F	-	1	4	4	8	17	1.4
	T	-	2	10	11	23	46	3.9
Childhood cerebral degenerations and acquired hydrocephalus	M	-	1	2	4	5	12	1.0
	F	-	6	4	2	1	13	1.1
	T	-	7	6	6	6	25	2.1
Infantile cerebral palsy	M	-	-	8	8	6	22	1.9
	F	-	3	4	16	9	32	2.7
	T	-	3	13	24	15	55	4.6
Hemiplegia	M	-	-	3	6	3	12	1.0
	F	-	-	2	-	-	2	0.2
	T	-	-	7	6	3	16	1.3
Quadriplegia	M	-	-	1	-	-	1	0.1
	F	-	-	1	-	1	2	0.2
	T	-	-	2	-	1	3	0.3
Paraplegia	M	-	-	1	2	-	3	0.3
	F	-	-	-	1	-	1	0.1
	T	-	-	1	3	-	4	0.3
Other paralytic syndromes	M	-	1	2	5	1	9	0.8
	F	-	1	-	2	2	5	0.4
	T	-	2	2	7	3	14	1.2
Epilepsy	M	4	17	20	30	34	105	8.8
	F	-	22	29	13	30	94	7.9
	T	4	39	49	43	64	199	16.8
Retrolental fibroplasia	M	1	2	-	1	3	7	0.6
	F	1	-	3	1	1	6	0.5
	T	2	2	3	2	4	13	1.1
All other visual impairments/ blindness	M	1	13	26	44	56	140	11.8
	F	2	7	46	38	38	131	11.0
	T	3	20	72	86	94	275	23.2
Abnormal auditory perception and deafness	M	-	4	10	9	12	35	2.9
	F	-	2	9	20	11	42	3.5
	T	-	6	19	29	23	77	6.5
Rheumatoid arthritis	M	-	-	-	2	4	6	0.5
	F	-	-	1	3	3	7	0.6
	T	-	-	1	5	7	13	1.1
Disorders of muscle, ligament and fascia	M	-	1	-	4	7	12	1.0
	F	-	-	1	2	3	6	0.5
	T	-	1	1	6	10	18	1.5
Osteochondropathies	M	-	-	1	9	7	17	1.4
	F	-	-	-	1	6	7	0.6
	T	-	-	1	10	13	24	2.0
Other acquired deformities of limbs	M	-	1	2	10	15	28	2.4
	F	-	-	2	10	12	24	2.0
	T	-	1	5	20	27	53	4.5
Curvature of spine	M	-	-	-	2	3	5	0.4
	F	-	1	-	5	4	10	0.8
	T	-	1	-	7	7	15	1.3
Total Diagnoses	**M**	7	48	123	226	269	673	56.7
	F	4	53	128	155	162	502	42.3
	T	11	102	257	386	431	1,187	100.0
Total Cases	**M**	4	34	88	148	174	448	
	F	3	32	73	93	103	304	
	T	7	67	164	243	277	758	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 82

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 2002
52 Northern Interior Health Service Delivery Area

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Retinoblastoma	M	-	-	-	2	-	2	0.1
	F	-	-	1	-	1	2	0.1
	T	-	-	1	2	1	4	0.2
Hemangioma and lymphangiona	M	1	4	9	6	8	28	1.5
	F	2	4	10	12	13	41	2.1
	T	3	8	20	18	21	70	3.6
Neurofibromatosis/ von Recklinghausen's	M	-	-	1	1	-	2	0.1
	F	-	1	-	2	1	4	0.2
	T	-	1	1	4	1	7	0.4
Diabetes mellitus	M	-	1	11	5	34	51	2.7
	F	-	-	3	21	22	46	2.4
	T	-	1	14	26	56	97	5.0
Disorders of adrenal glands	M	-	-	1	1	3	5	0.3
	F	-	1	2	2	6	11	0.6
	T	-	1	3	3	9	16	0.8
Tourette's syndrome	M	-	-	1	8	10	19	1.0
	F	-	-	-	-	2	2	0.1
	T	-	-	1	8	12	21	1.1
Hyperkinetic syndrome	M	-	-	3	42	48	93	4.8
	F	-	-	1	12	13	26	1.4
	T	-	-	4	55	61	120	6.2
Developmental delays	M	-	6	24	66	60	156	8.1
	F	-	7	23	36	15	81	4.2
	T	-	13	48	105	76	242	12.6
Mental retardation	M	2	4	11	25	26	68	3.5
	F	1	7	6	17	20	51	2.7
	T	3	11	19	42	46	121	6.3
Childhood cerebral degenerations and acquired hydrocephalus	M	-	1	6	5	3	15	0.8
	F	-	1	3	2	1	7	0.4
	T	-	2	9	7	4	22	1.1
Infantile cerebral palsy	M	-	8	13	18	32	71	3.7
	F	1	8	17	9	19	54	2.8
	T	1	16	30	27	51	125	6.5
Hemiplegia	M	-	-	1	7	4	12	0.6
	F	-	1	1	2	2	6	0.3
	T	-	1	2	9	6	18	0.9
Quadriplegia	M	-	-	-	2	2	4	0.2
	F	-	-	2	-	-	2	0.1
	T	-	-	2	2	2	6	0.3
Paraplegia	M	-	-	-	-	-	-	-
	F	-	-	-	1	-	1	0.1
	T	-	-	-	1	-	1	0.1
Other paralytic syndromes	M	-	-	3	1	3	7	0.4
	F	-	-	4	4	3	11	0.6
	T	-	-	7	5	6	18	0.9
Epilepsy	M	1	18	26	43	49	137	7.1
	F	1	8	23	21	38	91	4.7
	T	2	26	49	64	87	228	11.9
Retrolental fibroplasia	M	1	3	3	2	2	11	0.6
	F	1	1	3	1	6	12	0.6
	T	2	4	6	3	8	23	1.2
All other visual impairments/ blindness	M	2	17	52	97	110	278	14.5
	F	2	13	48	77	74	214	11.1
	T	4	30	100	176	184	494	25.7
Abnormal auditory perception and deafness	M	1	5	19	20	33	78	4.1
	F	-	1	16	11	15	43	2.2
	T	1	6	35	31	48	121	6.3
Rheumatoid arthritis	M	-	-	1	2	4	7	0.4
	F	-	2	1	-	2	5	0.3
	T	-	2	2	2	6	12	0.6
Disorders of muscle, ligament and fascia	M	-	1	3	3	9	16	0.8
	F	-	2	3	1	8	14	0.7
	T	-	3	6	4	17	30	1.6
Osteochondropathies	M	-	-	1	6	14	21	1.1
	F	-	-	-	5	6	11	0.6
	T	-	-	1	11	20	32	1.7
Other acquired deformities of limbs	M	-	2	9	9	26	46	2.4
	F	-	-	5	7	18	30	1.6
	T	-	2	14	16	44	76	4.0
Curvature of spine	M	-	-	-	5	4	9	0.5
	F	-	-	3	-	7	10	0.5
	T	-	-	3	5	11	19	1.0
Total Diagnoses	**M**	8	70	198	376	484	1,136	59.1
	F	8	57	175	243	292	775	40.3
	T	16	127	377	626	777	1,923	100.0
Total Cases	**M**	6	54	135	254	295	744	
	F	6	38	108	173	195	520	
	T	12	92	247	431	491	1,273	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than oncategory, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Table 83

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 2002
53 Northeast Health Service Delivery Area

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Retinoblastoma	M	-	-	-	-	-	-	-
	F	-	-	-	-	-	-	-
	T	-	-	-	-	-	-	-
Hemangioma and lymphangiona	M	-	2	2	3	4	11	1.5
	F	-	1	2	2	4	9	1.2
	T	-	3	4	5	8	20	2.7
Neurofibromatosis/ von Recklinghausen's	M	-	-	-	-	-	-	-
	F	-	-	-	2	-	2	0.3
	T	-	-	-	2	-	2	0.3
Diabetes mellitus	M	-	-	1	14	13	28	3.8
	F	-	1	4	10	16	31	4.2
	T	-	1	5	24	29	59	8.0
Disorders of adrenal glands	M	-	-	-	2	-	2	0.3
	F	-	-	-	-	1	1	0.1
	T	-	1	-	2	1	4	0.5
Tourette's syndrome	M	-	-	-	3	-	3	0.4
	F	-	-	-	1	1	2	0.3
	T	-	-	-	4	1	5	0.7
Hyperkinetic syndrome	M	-	-	2	19	17	38	5.2
	F	-	1	-	5	4	10	1.4
	T	-	1	2	24	21	48	6.5
Developmental delays	M	-	5	6	27	21	59	8.0
	F	1	1	3	13	7	25	3.4
	T	1	6	9	40	28	84	11.4
Mental retardation	M	-	3	4	6	8	21	2.9
	F	-	1	2	12	5	20	2.7
	T	-	4	6	18	13	41	5.6
Childhood cerebral degenerations and acquired hydrocephalus	M	-	2	1	2	4	9	1.2
	F	-	1	1	1	1	4	0.5
	T	-	3	2	3	5	13	1.8
Infantile cerebral palsy	M	1	-	5	3	11	20	2.7
	F	-	2	-	7	5	14	1.9
	T	1	2	5	10	16	34	4.6
Hemiplegia	M	-	-	-	-	1	1	0.1
	F	-	1	1	-	3	5	0.7
	T	-	1	1	-	4	6	0.8
Quadriplegia	M	-	-	-	1	-	1	0.1
	F	-	-	-	1	1	2	0.3
	T	-	-	-	2	1	3	0.4
Paraplegia	M	-	-	-	1	1	2	0.3
	F	-	-	-	-	-	-	-
	T	-	-	-	1	1	2	0.3
Other paralytic syndromes	M	-	-	-	-	-	-	-
	F	-	-	2	-	-	2	0.3
	T	-	-	2	-	-	2	0.3
Epilepsy	M	1	6	23	19	15	64	8.7
	F	1	5	11	16	24	57	7.7
	T	2	11	34	35	39	121	16.4
Retrolental fibroplasia	M	-	-	1	-	1	2	0.3
	F	1	-	1	1	1	4	0.5
	T	1	-	2	1	2	6	0.8
All other visual impairments/ blindness	M	1	4	21	41	35	102	13.9
	F	3	2	21	23	35	84	11.4
	T	4	6	42	64	70	186	25.3
Abnormal auditory perception and deafness	M	1	-	4	15	8	28	3.8
	F	-	-	2	5	6	13	1.8
	T	1	-	6	20	14	41	5.6
Rheumatoid arthritis	M	-	-	2	1	2	5	0.7
	F	-	1	3	1	-	5	0.7
	T	-	1	5	2	2	10	1.4
Disorders of muscle, ligament and fascia	M	-	-	-	3	1	4	0.5
	F	-	-	-	1	2	3	0.4
	T	-	-	-	4	3	7	1.0
Osteochondropathies	M	-	-	2	1	6	9	1.2
	F	-	-	-	-	2	2	0.3
	T	-	-	2	1	8	11	1.5
Other acquired deformities of limbs	M	-	1	1	-	9	11	1.5
	F	-	-	5	3	5	13	1.8
	T	-	1	6	3	14	24	3.3
Curvature of spine	M	-	-	-	1	2	3	0.4
	F	-	-	-	3	1	4	0.5
	T	-	-	-	4	3	7	1.0
Total Diagnoses	**M**	4	23	75	162	159	423	57.5
	F	6	17	58	107	124	312	42.4
	T	10	41	133	269	283	736	100.0
Total Cases	**M**	1	20	50	106	99	276	
	F	4	12	46	69	81	212	
	T	5	33	96	175	180	489	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. If an individual is diagnosed with conditions in more than one category, they are counted in each category. Counts of individuals still alive as of year-end 2002. Refer to Appendix 1 for ICD-9 and ICD-10 codes used in each category.

Appendix 1

Congenital Anomaly Categories and Codes

Diagnostic Category	ICD-9 Codes	ICD-10 Codes
Nervous System Defects	740-742	Q00-Q07
Anencephalus & similar defects	740.0-740.2	Q00
Other neural tube defects	741, 742.0	Q01, Q05, Q07.0
Hydrocephalus	742.3	Q03
Other nervous system defects	742.1-742.2, 742.4-742.9	Q02, Q04, Q06, Q07.8-Q07.9, G90.1
Anomalies of the Eye	743	Q10-Q15
Anomalies of Ear, Face, Neck	744	Q16-Q18
Anomalies of Heart	745-746	Q20-Q24
Transposition of great vessels	745.1	Q20.1-Q20.3, Q20.5
Tetralogy of Fallot	745.2	Q21.3
Ventricular septal defect	745.4	Q21.0, Q21.2
Hypoplastic left heart syndrome	746.7	Q23.4
Other heart anomalies	745.0, 745.3, 745.5-746.6, 746.8-746.9	Q20.0, Q20.4, Q20.6-Q20.9, Q21.1, Q21.4-Q21.9, Q22, Q23.0-Q23.3, Q23.8-Q23.9, Q24
Anomalies of Circulatory System	747	P29.3, Q25-Q28
Patent ductus arteriosus	747.0	Q25.0
Anomalies of Respiratory System	748	Q30-Q34
Cleft Palate/Cleft Lip	749.0-749.2	Q35-Q37
Anomalies of Upper Alimentary Tract	750	Q38-Q40
Tracheoesophageal fistula	750.3	Q39.1-Q39.2
Pyloric stenosis	750.5	Q40.0
Other anomalies of alimentary tract	750.0-750.2, 750.4, 750.6-750.9	Q38, Q39.0, Q39.3-Q39.9, Q40.1-Q40.9
Other Anomalies of Digestive System	751	Q41-Q45
Anomalies of Genital Organs	752	Q50-Q56

Anomalies of Urinary System	753	Q60-Q64
Renal agenesis	753.0	Q60
Cystic kidney disease	753.1	Q61
Other urinary anomalies	753.2-753.9	Q62-Q64
Congenital Musculoskeletal Deformities	754-756	Q65-Q79, R29.4
Congenital anomalies of spine	754.2, 756.1	Q67.5, Q76.0-Q76.4
Congenital dislocation of hip	754.3	Q65.0-Q65.6, Q65.8-Q65.9
Varus, valgus, clubfoot	754.5-754.7	Q66
Polydactyly, syndactyly	755.0-755.1	Q69-Q70
Limb reductions	755.2-755.4	Q71-Q73
Chondro/osteo dystrophies	756.4-756.5	Q77.0-Q78.4, Q78.6-Q78.9
Other musculoskeletal deformities	754.0-754.1, 754.4, 754.8-754.9*, 755.5-756.0, 756.2-756.3, 756.6-756.9	Q65.7*, Q67.0-Q67.4, Q67.6-Q67.8, Q68, Q74-Q75, Q76.5-Q76.9, Q78.5, Q79, R29.4
Anomalies of the Integument	228, 757	D18, Q80-Q84
Hemangioma & lymphangioma	228	D18
Other anomalies of integument	757	Q80-Q84
Chromosomal Anomalies	758	Q90-Q99
Down's syndrome	758.0	Q90
Turner's syndrome	758.6	Q96
Other chromosomal anomalies	758.1-758.5, 758.7-758.9	Q91-Q95, Q97-Q99
Multiple Anomalies	759.7-759.8	Q86.1-Q86.8, Q87, Q89.7-Q89.8
Other & Unspecified Anomalies	237.7, 759.0-759.6, 759.9	Q85, Q89.0-Q89.4, Q89.9
Fetal Alcohol Syndrome (FAS)**	760.7	Q86.0

Notes:

* Special code used for dislocatable/sublocatable hip.

**Counts for Fetal Alcohol Syndrome based on ICD-9 and ICD-10 are not shown due to reporting inconsistencies. Please see the Information Box on Fetal Alcohol Spectrum Disorder for details.

Other Genetic Conditions Categories and Codes

Diagnostic Category	ICD-9 Codes	ICD-10 Codes
Congenital syphilis	090.0	A50
Acromegaly/gigantism	253.0	E22.0, E34.4
Hypopituitarism (includes dwarfism)	253.2-353.4	E23.0
Hyperpituitarism and other pituitary disorders	253.1, 253.5-253.9	E22.1-E22.9, E23.1-E23.2, E23.6-E23.7
Phenylketonuria (PKU)	270.1	E70.0-E70.1
Other disorders of amino-acid metabolism	270.0-270.9	E70.2-E72.9
Disorders of carbohydrate metabolism	271	E73-E74
Disorders of protein metabolism	273	C88.0-C88.2, D47.2, D89.0-D89.1, E77, E88.0
Disorders of mineral metabolism	275	E20.1, E83, M11
Cystic fibrosis	277.0	E84
Other and unspecified metabolism disorders	277.1-277.9	D76, E713, E76.8-E76.9, E79.1, E79.8-E79.9, E80, E85, E88.8
Hereditary hemolytic and aplastic anemias	282, 284.0	D55.0, D55.8-D55.9, D56-D58, D61
Hemophilia and other coagulation defects	286	D65-D68
Huntington's chorea	333.4	G10
Other extrapyramidal diseases	333.0-333.3, 333.5-333.9	G23-G25, G80.3, G90.3
Anterior horn cell diseases (excludes ALS)	335.0-335.1, 335.8-335.9	G12
Hereditary peripheral neuropathy	356	G60, G64
Muscular dystrophy	359.0-359.1	G71.0, G71.2-G71.3
Other myopathies	359.2-359.9	G71.1, G71.8-G71.9, G72
Hereditary disturbance in tooth structure	520	K00.0-K01.1

Disabilities and Handicapping Conditions Categories and Codes

Diagnostic Category	ICD-9 Codes	ICD-10 Codes
Retinoblastoma	190.5	C69.2
Hemangioma and lymphangioma	228	D18
Neurofibromatosis/von Recklinghausen' s	237.7	Q85.0
Diabetes mellitus	250	E10-E14
Disorders of adrenal glands	255	E24-E25.0, E26.0-E27, E71.3, E89.6
Tourette's syndrome	307.2	F95.2
Hyperkinetic syndrome	314	F90
Developmental delays	307.0, 315, 783.4	F80-F83, F89, F98.5-F98.6, R62
Mental retardation	317-319	F70-F79
Childhood cerebral degenerations and acquired hydrocephalus	330, 331.3-331.4	E75.0-E75.4, G31.8-G31.9, G91
Infantile cerebral palsy	343	G80.0-G80.2, G80.4-G80.9
Hemiplegia	342	G81
Quadriplegia	344.0	G82.3-G82.5
Paraplegia	344.1	G82.0-G82.2
Other paralytic syndromes	344.2-344.9	G83, G95.8, N31.9
Epilepsy	345	G40-41
Retrolental fibroplasia	362.2	H35.1
Blindness, strabismus, and other visual impairments	361.0-362.1, 362.3-369.9, 371, 377-379, 743	H17-H18, H26, H31 H33-H35, H46-H58, Q11.0-Q11.1
Abnormal auditory perception and deafness	388.0-388.5, 389, 744.0	H83.3, H90-H91, H93.0-H93.3
Rheumatoid arthritis	714	M05.0, M05.8-M05.9, M06.1-M06.3, M06.8-M06.9, M08
Disorders of muscle, ligament and fascia	728	M24.2, M35.7, M60.0-M60.2, M61-M62, M72.0-M72.4, M72.8-M72.9

Disabilities and Handicapping Conditions Categories and Codes continued

Diagnostic Category	ICD-9 Codes	ICD-10 Codes
Osteochondropathies	732	M42, M43.1, M91-M93
Other acquired deformities of limbs	736, N885-897	M20.0, M21.0-M21.3, M21.5-M21.9, S48, S58, S68, S78, S88, S71, S81, S91, S98, T01.3, T05.0-T05.6, T11.6, T13.1, T13.6
Curvature of spine	737	M40-M41, M43.9, M96.2-M96.5

BRITISH COLUMBIA

Ministry of Health

VSA026 2005/04/15